AMERICAN AGRICULTURIST.

Designed to improve all Classes interested in Soil Culture.

AGRICULTURE IS THE MOST HEALTHFUL, THE MOST USEFUL, AND THE MOST NOBLE EMPLOYMENT OF MAN—WASHINGTON.

ORANGE JUDD, A. M., EDITOR AND PROPRIETOR. | ESTABLISHED IN 1842. | $1.00 PER ANNUM, IN ADVANCE. SINGLE NUMBERS 10 CENTS.

VOL. XVI.—No. 8.] NEW-YORK, AUGUST, 1857. [NEW SERIES—No. 127.

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WORK FOR THE MONTH.

"An August day! a dreamy haze
Films air, and mingles with the skies;
Sweetly the rich dark sunshine plays,
Bronzing each object where it lies.
Outlines are melted in the gauze
That Nature veils; the fitful breeze
From the thick pine low murmuring draws.
The bee is slumbering in the thistle,
And, now and then, a broken whistle—
A tread—a hum—a tap—is heard."

Street is one of the happiest delineators of rural scenes. One sees in his "August" the veritable dog-days, and feels the mid-day stillness and the sweltering air, and hears the voices of insect life, made audible only by the silence of Nature. Every one responds to the truthfulness of the pictures which the poet awakens in his mind by his word-painting. He sees the thick-leaved pine and the aspen standing like sculptured rock, the drooping leaves of the tasseled corn, the misty blue of the heavens, the distant masses of cloud, fleecy, and motionless upon the azure background. The insects never seem more busy than at this season of the year. They are found everywhere in field and forest, wheeling through the air with dreaming murmur, or crawling in countless numbers upon the parched earth. This day of heat and drouth, so uncomfortable to man, is a very paradise for insects, the high festival of the year. They are seen upon the stalks of grain and grass, upon leaf and bough, swinging in the summer air, or poised upon their wings, mocking the sunshine with their glittering hues. While work is most a drudgery with man, and he literally eats his bread in the sweat of his face, it is all holiday with them, a perfect carnival of delight.

"All day they're playing in their Sunday dress,
When night reposes they can do no less.
Then to the heathbell's purple hood they fly,
And, like to princes, in their slumbers lie
Secure from pain, and dropping dews, and all
On silken beds in roomy painted hall.
So merrily they spend their summer day,
Or in the corn fields, or in new mown hay."

Why is it that tiny creatures swarm in such multitudes, and at times destroy the harvests of man? Always they prey upon his labors, and are a serious hindrance to his work. Whatever the defects of soil, and climate, they oppose no such obstacle to fruit growing, or to the raising of grain, as these insignificant depredators. What bounteous harvests of wheat we might have, if the weevil, the midge, and the fly, could be consigned to their graves; what crops of hay, if the worms would let the roots of the grasses alone! If we plant the plum on any but a clayey soil, the curculio lies in wait to puncture every fruit, and make it the cradle of his offspring. If we set out apple and pear trees, bugs beset the trunks, and soon cover them with scales as if they were monsters of the deep. The peach, the quince, the cherry, the currant, the gooseberry, has each its enemy, as if Nature had sent an executioner with the sentence of death upon the track of every living thing. Why is there this seeming inconsistency in the arrangements of the creation. Why do we have these precious gifts bestowed, only to be snatched from us by these depredators?

We find in every department of nature a nicely balanced system, one race of creatures set over against another to keep each other within the limits which the Creator has assigned them, and at the head of this system is man. He has intelligence capable of understanding the designs of the Almighty, and of co-operating with the divine plans, or of thwarting them. In the sea, over which man has little control, the balance between the various tribes of fishes is kept up with little variation. If any race is materially diminished, it is that which visits the rivers and small streams for the purpose of depositing its spawn, and thus comes within the reach of man. The tribes that are voracious are less prolific, so that they are not unduly multiplied, and those which constitute the prey of others are made more abundantly fertile, and by instinct deposite their spawn in secure places. Thus, life in the sea moves on harmoniously, and no race becomes extinct until it has accomplished the work assigned to it by the Creator.

Man has interfered with the arrangements of Providence in regard to insects in two ways. Their supplies have been cut off, so that instead of feeding upon the forests and shrubs, they are now forced to feed upon cultivated crops. The forests once covered the whole country nearly, and every one must see the effect upon insect life of cutting off three-fourths or more of their natural pasture grounds. At the same time that there has been this reduction in the supplies of the insect tribes, the birds, their natural enemies, have been almost exterminated. They were designed to check the enormous multiplication of insects, and to be taken under the protection of man—for the sake of their aid in protecting him in the enjoyment of the fruit of his labors. Instead of receiving this protection, many of the birds have been proscribed by law, and a price set upon the heads of crows and black-birds, as if they were the enemies of man. Vagabond boys have had a special commission to destroy them with powder and lead, as if they were doing the world a service. So greatly has the stock of birds been reduced, that cultivators are beginning to be alarmed, and in some of the States they have already secured wiser legislation. But it will take many years before the natural balance between birds and insects can be restored.

There are, doubtless, moral lessons underlying these facts, but it is not our purpose to discuss them here. Meanwhile man must do tardily, and with infinite labor, what were better done by the myriad songsters of the grove and the meadow, until these have regained their place in our fields and gardens Man holds the balance of power, and may, through the birds, keep the insect tribes in check, so as to secure his harvests.

The swallows and martins, that find congenial society in man, should be encouraged to take up their abode around our barns and dwellings. They devour swarming insects, wasps, beetles and goldsmiths. It is estimated that a single bird will devour five thousand moths in a week. The sparrows and wrens prey upon insects in another stage of their existence, when they first come out of their eggs, and lurk within the buds, leaves, and flowers of plants. The thrushes, crows, blue-birds, jays, and black-birds devour butterflies, grasshoppers, crickets, locusts, and the larger beetles. In a season of three months, a single family of jays will destroy at least twenty thousand insects. This gives us some idea of the effectual check which birds put upon the ravages of insects. Now in "fly time," while the whole air is redolent of their murmurings, we would stir up the pure minds of our readers to think of their depredations, and to devise methods to destroy them.

EXAMINE YOUR TREES

for the evidence of their ravages. It is surprising to see how ready farmers are to pay cash for trees, and to plant them well, and how careless they are of their after treatment. They take it for granted that the crop of fruit is sure, as soon as the tree is set. I is not so. The work is only well begun. Trees should be treated as personal friends, looked to, visited, and flattered with particular attentions. Inquire after their health, and a response will come from the bark, the

twigs, and the leaves. Is the trunk smooth, indicating that the owner has applied strong soap-suds recently, and routed the moss and the countless progeny of scale bugs? There is sawdust around the collar perhaps. Investigate the hole with a wire, and smite the borer with a fatal *bore* under the fifth rib. Is the new wood strong and healthy; and the foliage luxuriant and glossy? You will find many curled and dead leaves, perhaps, and within the folds a whole brood of eggs, or a crawling grub. Kill him, as you hope for fruit next year. Turn pigs into your orchard to eat up the early dropping fruit. Every worm-eaten apple is a pest-house—destroy it. Scrape off the old bark, that serves as a refuge for the moths and their eggs; and bear it in mind, that all these labors and appliances will but imperfectly do the work of birds.

THE TIMELY SAVING OF SEEDS.

Do not wait till they begin to shell from the pod before you gather them. They are perfected even before the pod or husk is dry, and the drying process will go on quite as well under an open shed as on the stalk. Cabbages, turnips, beets, and some other vegetables have already formed their seeds and should be immediately secured. Have a place for them, and let them be bagged, and *labeled*, as soon as they are sufficiently dry.

DRYING SWEET CORN.

As you are luxuriating this month in that delicious compound, succotash, remember the dearth of next winter, and lay in a generous supply of this inspissated article. The beans will take care of themselves well enough, but the corn requires skill to evaporate its water, and leave behind in the kernel its sugar, starch, and gum, and those essential oils which lend their charm to the dish of corn and beans. Take the corn when in its best condition for this purpose. If too old upon the stalk, it will be too old next winter when dried. Juicy, plump ears, when the milk is richest, should be selected. They may be dried in the green state or boiled and then dried. In either case scrape the corn from the cob and dry upon sheets in bright sunny weather, and finish off in pans in the oven, or over the stove. When the drying is once commenced the evaporation should be kept up until it is finished. Sweet corn, soured in the drying, is ruined.

STRAWBERRY BEDS

should be made this month, if they have not already a place in the garden. This delicious fruit is scarcely more difficult of cultivation than the potato, and every farmer ought to have a generous supply for his own table, if he do not cultivate them for market. In the back numbers of this volume he will find full directions for preparing the beds, and setting the plants.

BUDDING.

It is a very easy thing to put new tops upon young trees by this simple process. It is best done upon trees of a year or two old; but by taking young sprouts old trees may be furnished with new heads. A bundle of buds, a sharp budding knife, and bass wood matting, or woolen yarn, will furnish you for this work. The shoots from which the buds are cut should be of this year's growth, and taken from the top or bearing parts of the parent tree. A day or two after a rain, when the sap is running freely, is the best time to insert the buds. All the cuts upon stock and bud should be made with a very sharp knife. Full directions were given in last month's *Agriculturist*.

THE APPLE WORM.

Now that the curculio and black wart have got such control of the plum tree, and the pear and cherry suffer so much from our severe winters and various diseases, men are beginning to feel that they must fall back on that old stand-by, the apple. Our own observation, this summer especially, of blasted pear and cherry trees, leads us to feel thus inclined. But the apple tree is not without its enemies and diseases. We allude now particularly to the worm,—not the caterpillar which infests the branches and preys upon the leaves, but what is known as the apple-worm or "Codling moth," appearing first in Spring as a miller, depositing its eggs in the calyx or eye of the young fruit, from which a grub is hatched and eats into the center of the apple. For several years past this pest has been increasing its ravages. In all quarters, last fall, fruit which appeared sound and fair to the eye, was found perforated by the worm.

What, then, shall we do? Certainly not sit down in despair and leave the time-honored and long loved apple to follow the other fruits so abundantly preyed upon. The apple-worm can be destroyed and he must be. Now, at this very season of the year, operations may be begun. Small, immature fruit is now beginning to fall from the trees, and will continue to do so until autumn. These apples contain worms and should be destroyed immediately. When one has only a few choice trees in his door-yard, these apples can be picked up, (children's little fingers are just the things for this work,) and fed to the pigs or cooked to destroy the insect. In large orchards swine should be allowed to run, which will eat up nearly all the punctured fruit as fast as it falls. Early in spring is another season for attacking the worm. At that time he may be caught napping in the shape of a moth, rolled up in a cocoon in the crevices of the tree, where he has spent the winter. The killing of these worms should be made a part of every Spring's work.

Another very good method has been recommended, viz: to suspend quart bottles, half filled with sweetened water, by straps from the branches of the tree. This trap must be set early in summer, while the marauder has on his wings. In the course of a few weeks multitudes will take to the bottle, and find hard drinking prove their ruin. Some orchardists try fire by night, in connection with sweetened water by day. They kindle small bonfires of straw or shavings in their orchards, one or two evenings a week, in June, and the apple-miller, like others of the family, flies into the fire and perishes The tar flambeaux spoken of on page 135 of the June number are recommended, burning for a long time if properly prepared.

CALENDAR OF OPERATIONS.

AUGUST, 1857.

[We note down a summary of various operations, many of them very common ones, it is true, but a simple catalogue like this will often suggest a piece of work that would otherwise be forgotten. The Calendar is adapted to the latitudes of 40° to 44°. A little allowance must be made for each degree of latitude—later north—earlier south. This table will be made out anew every month, and adapted to the season of each year.

EXPLANATIONS.—The letters, f. m. l., refer to *first*, *middle*, and *last* of the month.

Doubling the letters thus: ff., mm., or ll., gives emphasis to the particular period indicated.]

FARM.

The present is, by some, called a month of leisure, but the thrifty farmer will see enough to occupy his time. His business is not as pressing as during "hay and harvest," and he may properly enjoy a little relaxation with his family, and let the *boys* "go fishing." But his farm crops must not be neglected, and now is a favorable opportunity to collect and compost manures for winter grain and Spring crops of next season. "A penny saved is twopence earned," should be borne in mind by those who spend large sums annually in the purchase of foreign manures.

Among the things requiring attention is the cutting of Bushes along hedges and in pastures. Bushes "whipped" during this month will not sprout readily.

Butter and Cheese making will form a very important part of "household labors," in all of which neatness is an essential requisite. For directions see July number, and on another page.

Cabbages—Late ones may still be planted out ff. on grounds already free, or soon to be cleared of early crops

Cattle—See that their grazing lands are sufficient. Give milch cows a little of the soiling crop each day to keep up a good supply of milk, especially if it is for market. A handful of clean wood ashes, mixed with as much salt, given to each animal every week is a good preventive of "murrain."

Corn—Keep the fields free from weeds, but do not plow or cultivate so deep as to injure the roots at this season. Early plantings for forage may be gradually cut and fed.

Cotton—Prepare baskets, sacks, gin stands, presses, &c., in the early part of the month, that there be no detention when the picking season commences at the south, about the middle of the month.

Draining—Reclaim swamps, and double the value of wet lands by thorough drainage. Read the chapters in former numbers.

Fences—Keep in good repair. Do not invite your cattle to become unruly by leaving a bar down here, a rail or board off there, and a broken down wall in another place.

Forests—The present is a favorable month to cut off forests for the purpose of bringing them under tillage. After removing the larger wood, spread and burn the brush m. l. for a crop of rye or wheat.

Hay—Cut Salt and Sedge, selecting neap tides in order to remove it without being flooded. Stack upon high grounds or give it barn room.

Hoeing should not be neglected as long as weeds continue to grow.

Hogs—Keep their pens and yards well supplied with manure materials, and compel them to contribute in part towards their support as manufacturers. Store hogs may continue in pasture or orchard, but those for early fattening should have a smaller range and more feed.

Manures—Pay particular attention to their manufacture, collecting from the woods, muck swamps, ponds and road-sides, everything valuable and compost with fish and sea-weed. Keep hog and cattle yards covered with muck and collect the droppings each morning throwing them in a heap under cover. Read article in present number on the "drainage of cattle yards and Hints for the Season," on another page.

Millet—Commence cutting for milch cows ff. Secure the whole crop before the seed hardens, unless the grain is wanted.

Muck—Dig in dry weather and cart a goodly supply to your yards and stables, as recommended elsewhere.

Oats—Complete harvesting ff. Do not allow them to get too ripe, thus injuring the straw for feeding.

Pastures—See that the feed is sufficient for grazing animals. A frequent change of grounds is beneficial.

Plow deep for winter grain m. ll. manuring well.

Potatoes—Early plantings are now ready for market and the ground may receive a crop of cabbages or turnips.

Poultry—Look to, especially if confined in houses and yards. Keep the roosts and nests clean, and if troubled with vermin, dust the fowls with flour of sulphur. Line the nests with tobacco leaves to expel lice from setting hens.

Rice—Complete cutting at the South, m. l., shutting off the water for a week or ten days previous to harvesting

Root Crops—Keep the ground free from weeds and well stirred between the rows.

Rye—Complete harvesting both winter and spring varieties. Sow winter crop ll.

Seed Wheat, Rye, &c.—If all foul stuff was pulled from the seed patch, it will only be necessary to thresh with flails, and sift out the small shriveled grains. See article on "Saving Seed Wheat."

Sheep—Protect from dogs by placing bells upon a few of the flock, the jingling sometimes frighten dogs.

Stone Fences—Build as opportunity offers, using up the stone and securing a good permanent fence at the same time.

Sugar Cane—Cut a portion of the Chinese and feed to milch cows or cure it for winter use. If cut f. m. it will make a second growth of similar size for late harvest. See article in this number.

Timber—Cut during this month if the best preserving quality is sought.

Timothy—Sow with rye ll. if this crop is used to seed down with. Next month will be in time for the main crop.

Tobacco—Commence harvesting when the leaves have acquired a mottled, gummy appearance and break when doubled over.

Turnips may still be sown ff. among corn and potatoes, or after early crops. Flat or cow-horn varieties should be used instead of ruta bagas for such late sowings. Cultivate, hoe and thin former plantings.

Weeds—Make into compost, or feed to swine instead of raising for *seed*, particularly about the manure heap.

Wheat—Cut Spring varieties at the north m. l. Prepare grounds ll. for early sowing next month. Winter wheat may be sown this month. Nature sows for the next crop as soon as the old one is ripe.

ORCHARD AND NURSERY.

The fruit grower is now reaping the reward of his persevering labors, in the luscious Peaches, Plums, Early Apples and Pears, whose sunny cheeks and sweet aroma gratify both the eye and the palate. Well may he feel a laudable pride as he views his fully loaded trees, the branches of some of which he has had to support to prevent their breaking under the weight of a heavy crop of large sized perfect fruit, and he now feels amply paid for the extra care bestowed upon his orchard by way of manuring, pruning, cleansing the trunks, destroying insects and thinning the fruit.

In both Orchard and Nursery the Summer pruning commenced last month, may be continued during August. The chief work of the Nurseryman for the present, however, is

Budding—Which should be continued on the different varieties as the state of the stock and ripeness of the buds indicate the proper season. It is useless to attempt budding when the bark of the seedling will not separate readily Those inserted last month should be examined in about three weeks after the operation and bandages loosened it necessary. Rebud if the first has failed to unite.

Caterpillars—Examine for late broods of these, and check their ravages at once.

Fallen Fruit—Collect by hand, or allow swine a range of the orchard. Cook all that falls prematurely, to destroy the worms remaining in it.

Fences—Keep in good repair, as cattle are fond of nipping off the new growth if an entrance can be obtained to the grounds.

Hoeing of Nursery grounds should not be neglected this month, nor should the soil about newly planted, or even other fruit trees nourish a crop of weeds.

Inarching—This is the proper season for performing the operation upon many trees and plants. See full directions on another page.

Insects—Keep up the torches, and suspend bottles as per directions already given.

Layer shrubs, trees and vines, as treated of in a subsequent column.

Peaches will need gathering and marketing during the early part of the month. Pick before they are soft, else they will bruise in transporting.

Pears, particularly early varieties are now ripening and should be gathered and laid upon shelves or sent to market while firm. The flavor is not injured but rather improved by picking before fully ripe and maturing them in houses.

Pruning—Complete f. m. We strongly advise summer and fall pruning in preference to deferring it till winter or Spring.

Seedlings of all kinds should be kept free from weeds. Shade the evergreens, and other varieties liable to burn off, by a partial screen, or place them under the branches of trees.

Stones or pits—Collect and put in the ground or in boxes of moderately dry sand or earth. If long kept in a dry state they will rarely vegetate.

Thin late fruit ff. if not already attended to.

Vines—Continue to train new growth, and layer for an increase of stock.

Weeds—Give these to the *hoe* or *hogs*, instead of their taking both *food* and *drink* from your grounds.

KITCHEN AND FRUIT GARDEN.

The planting season is nearly over and attention to the growing crops will claim the gardener's chief labors. Any spots rendered vacant by failures or removals of early crops may, however, still be sown to Dutch turnips, or planted with late Cabbages. *Soil* is not like a jaded horse which needs rest after performing a journey. Give it a good coating of manure, with a thorough plowing or spading and it is as willing to produce a second crop as it was the first. It should not be allowed to spend even the remainder of the season in idleness while there is an increasing demand for almost every cultivated vegetable production. A glance at the table below will call attention to most of the garden products, commencing with the

Asparagus Bed, which should not be given up to weeds now that its season for usefulness is over. Keep it as clean as heretofore for the future benefit of the bed.

Beans—Early Kidneys may still be planted ff. except at the far North.

Beets—Thin those sown last month. Early ones are ready for use. Pull from the thickest parts of the bed.

Cabbages—Cauliflowers and Brocoli—Plant ff. for late use, if they were not all put in last month. Keep grounds well stirred about former plantings.

Celery—Put out the remaining crop ff. wetting both the trenches and the plants after setting. See treatment on another page.

Corn Salad—Sow ll. for winter and spring crop.

Currants and Gooseberries—Prune m. l. cutting out old decaying wood. Head back, and shape to a tree form, as seen on page 112 of May number.

Espalier or Wall trees—Regulate branches, and prune if necessary.

Grape Vines—Read chapters on.

Herbs—Complete gathering, cutting while in full flower. Dry and pack in tight boxes or bottles after sifting.

Hops—Pick during dry weather as they ripen. See article on their culture.

Insects—Continue to destroy those injurious to vegetation as per directions of last month.

Lettuce—Sow and plant out f. m. l.

Mushrooms—Collect spawn ff. and make beds m. l.

Onions—Sow ll. for sets to plant out next spring.

Peas—Sow ff. for late. Clear grounds of the haulm or straw of early crops and resow with peas or turnips.

Radishes—Sow f. m. l. for succession.

Raspberries—Cut out bearing canes which have ripened their crop. Collect and house the stakes.

Seeds—Collect as many as possible and preserve them in dry places, labelling with care.

Spinach—Sow f. m. l. for Autumn use.

Strawberries—Make beds and plant at any time during the month, mulching and watering freely.

Tomatoes—Stake or bush ff.

Turnips—Sow Ruta Bagas ff. except at the North where Dutch varieties will succeed best at this season. Read chapters in last number and on another page of the present issue.

Water—Give slops, wash water, &c., to currant bushes, strawberry beds, and newly planted vegetables.

Weeds—Raise *vegetables* instead of a crop of *weeds* to impoverish the soil, and leave seed for future toil or labor to exterminate.

FLOWER GARDEN AND LAWN.

Many of the directions given last month will apply for the present, Annuals now present a fine show of bloom, and late perennials succeed the early flowering varieties. The principal labors in this department should now be directed to keeping the grounds clean and attractive, and the soil loose about the plants. Many of the potted plants brought from the houses in June and July, will require a shift into larger pots.

Bulbous Plants—Those intended to be removed this season should be lifted ff. if not done last month. Some of the earlier blooming varieties, such as Snow Drop, Crocus, Iris, &c., may be planted ll. although next month will be in season. Now is a proper time to sow seeds, for new varieties.

Carnations and Picotees—Continue to layer ff. m. Separate and plant out former layerings which have rooted, watering freely.

Chrysanthemum—Layer f. m. those intended to propagate. Stake f. m.

Clarkia and Coreopsis—Sow in pots or on warm borders ll.

Dahlias are now the "Pride of the Garden," if a goodly number of various colors were interspersed at planting time. Stake to prevent injury by winds or storms, and prune off superfluous branches. Frequent waterings, and a mulch about the roots improve the appearance of the bloom.

Flower Stalks—Cut away perennials and biennials as fast as they complete their bloom, and remove annuals entirely, giving the space to later varieties.

Gravel Walks—Hoe or weed often, raking smoothly.

Hedges—Clip m. l. unless it was done during the latter part of last month.

Hoe often all cultivated grounds, walks, &c., removing the weeds with the rake.

Hollyhocks—Propagate by suckers, or cuttings of the same.

Insects—Do not allow them to increase even if they are not as troublesome as earlier in the season. Continue the Whale Oil Soap mixture for slugs on rose bushes. A dusting of lime or wood ashes will accomplish the same purpose.

Lawn and Grass Edgings—Mow evenly every two weeks and rake off.

Pansies—Plant seed ff. for Spring bloom. Continue to layer and remove those which are well rooted.

Perennials—Fibrous rooted, such as Sweet William, Scarlet Lychnis, Ragged Robin, &c., may be parted and transplanted m. l.

Potted Plants—Loosen the earth on the surface of pots, and remove any decayed leaves.

Prune Shrubs and Trees upon the Lawn, or borders, if necessary, always using the knife sparingly upon shade trees.

Roses—Continue to bud and layer ff. m See article on layering.

Seeds—Collect as they ripen, and save as directed last month

Ten Week Stocks—Sow m. l. for early Spring blooming.

Transplant any late annuals still needing it, watering thoroughly both before and after setting. Shade for a few days if dry hot weather succeeds.

Verbenas—Layer ff. m. for winter and Spring blooming in houses.

Water—Give to potted plants especially, and those newly planted out. If very dry an application both morning and evening will be beneficial to those which absorb rapidly. It is better to mulch the ground before watering.

Weeds should only be found in the Flower Garden in the shape of *native wild flowers*, many of which are worthy of a place here.

GREEN AND HOT HOUSE.

A large number of plants are still in the Flower Borders, or in pots in the open air and are treated under "Flower Garden." Those remaining will need abundance of

Air each day, unless the weather is unfavorable.

Annuals—Sow Mignonette, Clarkia, Coreopsis, &c., for Winter flowering.

Azalias—Give plenty of air and water, syringing frequently. Shade from hot sun.

Budding—Complete f m.

Bulbs—Pot a few m. l. for winter forcing.

Callas—Repot f. m. watering moderately.

Camellias—Repot, bud and inarch f. m. Syringe and water freely.

Chrysanthemums—Shift into blooming pots, giving liquid manures.

Cuttings of succulent plants make f. m.

Earth in Pots—Loosen or stir, renewing where necessary.

Fumes of Tobacco—Give to houses containing green fly, apis, &c.

Gloxinias—Those done blooming may now "dry off."

Grapes—See Chapters on.

Houses—Commence early to put them in order, before plants are brought in. Repair shelves and beds, glaze windows, cleanse the whole house thoroughly, have ropes weights and pullies in working condition, look to the heating apparatus, and lastly paint those houses requiring it, being careful to empty them from all tender succulent plants at the time, else the poisonous gas from *new paint* will cause defoliation.

Insects—Allow none to increase as the brooding season draws to a close. Fumigate, syringe with pure water and the Whale Oil Soap mixture.

Labels—Prepare for all potted plants, writing both *generic* and *specific* names upon a painted surface.

Layering and Inarching—Continue f. m. as directed upon another page.

Oranges, Lemons, Shaddocks, &c.—Complete budding ff. m.

Pelargoniums—Repot and make cuttings of ff,

Potting—This is the appropriate season for shifting generally, and potting off seedlings. Complete early, that they may become established before winter.

Seeds—Watch the ripening of and collect ff, m.

Stake weak shoots, and turn often.

Tender Plants, and those for early winter bloom. Take in ll.

Verbenas, Petunias, Geraniums, &c.—Layer and make cuttings ff. m. for winter flowering. Pot off those made last month.

Water—Give abundantly inside, and to pots in the border. Syringe the foliage and walls of the house both morning and evening, sprinkling the floors at the same time.

THE CHIEF AIM IN FARMING.

There are many cultivators of the soil who seem to have no well-defined purpose in their husbandry. They have no plans laid far ahead, which they are seeking to realize in their practice. They exist rather than live, are listless in their efforts, and effect no beneficial changes in the soil they attempt to cultivate. Everything about them wears the aspect of decay. The farm buildings are never repaired, while it is possible to get along without it. You can see the gaps in the roof, where the winds have blown off the shingles, and the missing boards and swinging clapboards from the sides of the building. The fences are never re-set, no stones are dug from the mowing fields, and no drains are made in the swamps and low lands. They simply contrive to get along, their land and themselves growing poorer every year.

There is another class, who have purpose and energy enough, but it is not wisely directed. Their aim in farming is to get the most possible out of the soil, and to put the least possible back, in the shape of composts and fertilizers. Their whole farming operations are based upon the theory that the soil is a living well that will always send forth its waters as long as there is anybody to draw. They plant and sow as long as they can get remunerative crops, and then either sell out, or resort to concentrated fertilizers, which stimulate the soil to part with its last elements of fertility, and leave it nearly barren. They are generally energetic men, work hard, and push their help as hard as they do their acres. They plant a very large breadth of land, and in a few years exhaust a whole farm. They do not believe in plowing in crops, or in making composts, or in saving the stable manures. They can not see any utility in carting dirt into the barn-yard, and then carting it out again. It looks like a waste of labor. If near the shore, they rely upon fish to stimulate the soil when it fails to produce otherwise, and thus crop after crop of grain and grass is taken off, until the land is exhausted of its carbon, and runs to sorrel. If inland, they rely upon Peruvian guano, which in a few years serves the soil in the same manner. The theory of these farmers is to get great crops, at whatever expense to the land. This is the skinning method of farming, and the more energy these farmers have the sooner the land is ruined.

Now, we believe the chief aim in all good farming to be the improvement of the soil until it reaches the point where maximum crops are produced at the least expense. Wise husbandry regards the farm simply as a *machine* for turning out crops. The machine is the matter of first importance. This is always to be kept in good running order, and its efficiency is to be increased by all economical methods. The man who farms upon this system will never sacrifice soil for a great crop. His aim is to have every crop taken off, leaving the land in a better condition than he found it. He aims in every working of the soil to increase its depth, and to add to it more elements of fertility than he removes in the crops, and to make the crops not only pay for themselves, but to pay for the improvement of the acres upon which they are grown.

In carrying out this aim, so as to realize these results, a man shows his skill as a cultivator. It is a comparatively easy thing for any one, who has money, to improve the soil so that it shall produce crops paying for the labor of growing them, and the interest on two or three hundred dollars an acre. Stable manure enough well plowed in will do this. But it is altogether another matter to make this improvement pay for itself. Yet it is a possible thing to do this, and there are farmers skillful enough to accomplish this result, and this we hold to be the true aim in the cultivation of the soil.

All good farming, then, must look to a permanent occupation of the soil. Economical improvements can not be made in a single year. The most judicious improvements, those which finally pay the largest profits, require several years to bring in their full returns. It is a matter of great importance that our farming population should not only be settled, but that they should feel settled, and plan all their operations upon the farm as if they expected to spend all their days upon it.

Here is a ten acre lot now in mowing, cutting ten tons of hay, worth one hundred dollars. It has in it some stumps, more boulders, some brush by the wall, and a few wet places, growing nothing but sour grasses and flags. It can be cleared of all obstructions, be underdrained, subsoiled and manured, so as to produce three tons of hay to the acre for the sum of say one thousand dollars. It will not pay the present occupant to do this the coming year, if he is going to sell out the year following. But he may accomplish all this economically in five years, furnish profitable employment for his help, introduce the mowing machine, and cut more fodder upon the field than he now cuts upon the whole farm. He may get crops enough from the field during the five years to pay for all the improvements, leaving the increased value of the land, certainly not less than a hundred dollars an acre, as the reward of his skill in husbandry.

This is an illustration of what a farmer's aim should be, and a good example of the kind of improvements that are needed upon most farms, at least upon the seaboard. The fields want to be cleared of rocks, the swales need deep underdrains cut through them, with smaller side drains running into them at right angles; old walls want removing, and the fields enlarging to ten or twenty acres; the whole surface needs to be thoroughly worked and manured, so as to produce maximum crops. By this thorough method, horse labor may be substituted for that of man, so as to save full one half of the present expense of raising and harvesting the crops. In smooth land, nearly all the planting and hoeing can be done by a horse; all the mowing, reaping, cradling and raking can be done by the same method.

The man who will lay his plans wisely to improve his soil, making this his chief object, and who will judiciously expend his capital in the improvements we have indicated, is in a fair way to gain a competence. This kind of farming, in the long run, will pay amply, and we believe more surely than any other business. The skinning process, which is reckless of the soil, and looks only to the crops, is bad policy both for the farm and its owner. Let it be abandoned.

HINTS FOR THE SEASON.

At this season of the year, many of our readers are, with us, noting the results of good farming. The dog-star is in the ascendant. Long, hot, dry days succeed each other, rapidly carrying off the moisture of the soil which many plants need for their healthy growth and maturity. In some places the corn crop is checked in its growth before the ears are filled out; pastures are turning brown, and crisp under the tread of the foot; some fruit trees are in a suffering condition, and gardens and ornamental grounds are less attractive than in more favorable seasons.

1st. But we have observed one thing during this dry weather which, though not new, yet needs frequent mention, viz.: that the best tilled lands suffer least from drouth. We daily pass several fields which were subsoiled and thoroughly manured last Spring, and the crops on them continue to grow with great luxuriance, their waving leaves seeming to beckon defiantly to the drouth to come on and do its worst. Fields near at hand, with as good natural position and soil as the other, but which were hastily and superficially tilled, are now drying up for lack of moisture. They looked about as well during the plentiful rains of Spring and early Summer, and seemed to offer a premium for poor farming; but now, alas, they are a sorry sight! They are a mortification, a reproach, and a pecuniary loss to the man who owns them.

We are by no means disposed to push this matter of high farming to an extreme, and to insist that every field shall be trench-plowed and manured regardless of expense; but we do say that most land should be more thoroughly plowed than they now are, and that what is annually taken off in the shape of a crop should be returned in the shape of manure. Lands well treated dry sooner in Spring, retain their moisture and fertility better in midsummer, and yield larger and better crops. No observing man can open his eyes without seeing this. Brother farmer, the present we know is not the time to remedy any mistakes you may have made in tillage, but it is just the time to feel them deeply, and to make note of them for future profit. Bear, then, with our "line upon line," and while the aspect of the farms around you enforces our exhortation, resolve to practice accordingly the next season.

2d. Our second hint for the times grows out of the first, and relates to the gathering of materials for the compost heap. It is often recommended to collect muck in Winter, because that is a season of comparative leisure. It is well to draw it from the swamp

then, but now is the time to dig it out and throw it up into heaps to dry for Winter transportation. When lying in its native bed in the swamp, it is full five-sixths water. What a waste of labor, then, to raise and haul it in that state to the barnyard! Dig it out now, while the swamps are comparatively dry, throw it into heaps, cover them if possible, and in Winter it will be in fine condition for removal. Have you no swamp to draw upon? Perhaps, then, your neighbor has an inexhaustible supply, where you could easily purchase a right to dig. Save the chips and refuse dirt from your wood-house and log-heaps, collect turf from your low and wet pastures, or from the side of fences where the plow and hoe cannot reach in the ordinary course of cultivation.

3d. Another seasonable hint, suggested by the last, relates to the draining of swamps and low lands. Now is the best time in the whole year for doing this. In Spring or Fall, the labor would be greater, as well as a hundred fold more unpleasant. Such lands, where there is a great flow of water at certain seasons, require open drains, at least for the main ditch. Branches running into this central channel may be made with tile, or stones. In digging the main, open ditch, it is important to make the sides of it quite sloping to prevent their caving in and filling up the water-course. We have seen such lands, which previously were almost worthless, made the best part of several farms.

4th. Take good care of the manure heap during the Summer. Too often, during the busy Summer season, the cleanings of the pig-sty and stables, and the various refuse matters accumulating in the rear of one's premises, are suffered to be exposed to the sun, wind and rain, both wasting their most valuable properties, and filling the air with a noisome stench. We have often urged the gathering up and preservation of all fertilizing materials, such as bones, chips, weeds, old plaster and lime, kitchen slops, &c., and we now repeat the exhortation. Let all these things speedily find their way to the compost heap. And that heap itself should be looked after. If on the north side of the barn, it will be better off than on the south. And if covered it will be better off still. Such a covering can be made without much trouble or expense. Set in the ground, six, eight, or more posts, according to the expected size of your heap, and throw over them a shed roof of boards or slabs, sloping to the south. Board up the shanty on three sides, leaving the north open. Now, see to it that a generous pile of muck, or its equivalent, is deposited just outside of this shed, and you will be ready for operations. Wheel in manure from all quarters as fast as it accumulates, and lay it in rows or heaps the whole length of the shed, treading it down firmly, and covering it with successive layers of muck. In this way, the manure will be preserved from the action of the elements, and the volatile gasses which the Summer heat so rapidly evolves, will be absorbed and saved. If any one thinks this won't pay, let him—try it and see.

SEED WHEAT.

Before the 10th of September, most of the wheat that will yield a good crop next year will be in the ground, and the value of the crop will depend greatly on the character and condition of the seed. The importance of this great staple, and the distress resulting from a diminished supply of it, entitle all the aids in its production to a careful study.

SELECT GOOD SEED.

1st. Choose a kind which has succeeded well in soil and climate *similar to your own*. Intelligent neighbors, who have raised good wheat, can help much in this matter. It is not well to try new experiments on a large scale, unless one is prepared to risk a considerable loss.

2d. Accept only that seed which is perfectly *ripe and plump*. Let no man impose on you by saying that smaller kernels will produce a greater number of plants from a bushel of seed. What is wanted is a strong vigorous growth of wheat plants. This you cannot effect from half-grown or shriveled seed.

3d. Never sow any but the *cleanest seed*. You can tell by examining it what its condition is. If the seed is good in other respects, but is foul, clean it yourself. But be sure to have it clean at all events.

4th. Reject seed that has been kept *damp*, or has been *heated*. Seed that suffered either or both of these injuries may germinate, but it has lost a part of its vitality, and should never be used for seed if better can possibly be secured.

5th. Do not sow *mixed* seed on the same ground. Let the seed of one sowing in the same field be of one kind *alone*. You will thus know what kind you are growing, and be able to compare results, with an approach towards accuracy.

6th. If possible, never sow seed which is more than one year, or at most, *two* years old. Old seed *may* grow well. But it may not. Prudence will suggest that seed should be used before it has been exposed to decay, to insects, to dampness, or to other injurious agencies. Experience has taught that some of these are likely to injure the kernel, if it is kept after the first year.

One way to get good seed is to select the cleanest and best spot in your wheat field, where the grain grows most perfectly and is most mature. Then harvest and thresh these portions separately, with the greatest care, and save the seed for sowing. Pursue this course for a number years, and you will produce what will seem to be a new variety of wheat. But it will only be the same, developed and perfected in a higher degree. This operation for securing good seed will pay in every department of farming and gardening.

A good mode of preventing smut is the following: Spread seed wheat on the barn floor. Upon four bushels of wheat dash from 12 to 16 quarts of human urine. Stir the whole well together. Then add about six quarts of fresh slacked lime, and shovel the wheat over till the lime is evenly diffused in the wheat. It should be sown as soon after this preparation as practicable; for a long delay would injure its vegetative powers. This mode of treating seed wheat is deemed, in England, a *specific* against smut. It has been practised in America also by some wheat growers, who say it has been uniformly successful. Tar water will answer instead of urine, and is preferred by many.

The farmer who will select and prepare his seed wheat according to the above suggestions, will greatly increase the chances in favor of his having a fine crop next year.

POTATO VINES AS A MANURE.

A new inducement for the cultivation of this crop may be found in the value of the tops as a fertilizer. It is well known that all vegetable substances become the food of other plants when they decompose, and that it is good economy to save all vegetable wastes upon the farm for manure. In some plants large quantities of nitrogen, potash, &c., are concentrated, so that they approximate in value to animal wastes for manure. It has been well known for a long time that rape cake and cotton seed are good fertilizers. From some experiments that have lately come under our notice, we are inclined to think that the vines of the potato may be added to the list of concentrated vegetable manures, and that the part of the potato crop above ground, so generally considered worthless, may prove to be no inconsiderable part of its value. It has been our practice for years to put the tops of this plant, when the tubers were dug, immediately into the compost heap, since chemical analysis shows that they contain a large per cent. of potash. We see in the last report of Secretary Flint to the Massachusetts board of Agriculture, that a practical farmer in Norfolk County has been applying them as a top dressing to grass land. This farmer says "for several years we have been in the habit of raising from one to three acres of early potatoes for market. We have usually dug them early in August, and before the tops were dead. The tops are taken directly from the field, and spread on the mowing lands to very great advantage. We think the tops from an acre of potatoes sufficient to top dress an acre of mowing land, and the effect is equal to three or four cords of good manure.

It is a well-ascertained fact that the stalks of the potato are rich in the organic elements of plants. Fromberg's analysis gives in 100 pounds of the leaves, in their natural state, 5.12 to 5.76 per cent. of nitrogen, and in the same weight of leaves dried, 82 to 92 per cent. of nitrogen. According to the statement of this reliable chemist, every ton of potato tops saved would add to the soil 50 pounds of inorganic salts and twenty pounds of nitrogen. This would make a ton of them worth more than two tons of Ichaboe guano.

It is doubtful, however, whether the Norfolk farmer has adopted the best method of using them. In spreading them upon grass land, in their green state, in the dog days, a large part of the nitrogen must be lost. A much safer mode would be, as soon as the potatoes are dug, to remove them to a heap and compost them with muck or loam. We have always noticed that such heaps are very soon thrown into violent fermentation. This would be a good way of decomposing coarse sods from swamps and marshes. All the ammonia evolved from the vines would be saved in the muck, and a large quantity of valuable compost would be prepared at a a small cost.

This suggestion of the value of these tops for manure is worthy of careful trial by all who cultivate this crop.

GOLD MEDAL OF THE U. S. AGRICULTURAL SOCIETY.

We present herewith a copy of the *face* o the new "Grand Gold Medal" of the above Society. This medal is just of the size of our cut. We see on the face Ceres, who was, according to the ancient heathen mythology, the goddess of Corn, and the patroness of those who cultivated the earth. Seated on a throne, in her right hand, which is extended upward and forward in an attitude of invitation, she holds a wreath of honor; in her left the sickle—emblem of agricultural industry. In her lap are gathered various fruits. Her brow is crowned with the star of Empire, and her expressive countenance manifests her dignified rank as the impartial disposer of awards to the competitors. Around the rim of the medal is the classic wreath of laurel.

Reverse Side.—The opposite side of this medal is ornamented simply with a wreath of plants, the productions of the grand divisions of the United States, emblematic of the National character of the Society. On

one side are the Sugar Cane and Cotton Plant, on the other Indian Corn and Wheat, and, at the bottom, uniting the two, is a grape vine laden with fruit and leaves. Thus the great staples o the South, North, West and East, are wreathed together, encircling a space appropriated for inscribing the name of the successful competitor.

NATIONAL REAPER AND MOWER TRIAL,

AT SYRACUSE, N. Y., *July* 13, 1857.

Having been unexpectedly detained by untoward circumstances from attending the above Exhibition, we left the matter in care of an intelligent friend, from whom we received a long and full report of the entire proceedings. After due consideration, however, we do not think it worth while to publish the account. A Committee of skillful judges were appointed to conduct the trial, and many of the results arrived at, they, perhaps wisely, kept from the public for the time being. It is now too late for any use to be made of the results this season. On the whole, we deem it best to suspend any remarks upon the implements, and wait for the full report of the Judges, which will be made public in September.

Though we have doubts as to much practical good resulting from great gatherings of this character, the one at Syracuse appears to have been one of the best conducted of any hitherto held. We quote the closing paragraph of the report made for us:

During the entire week of the trial, the weather was dry, and excessively hot, and it was a daily wonder that the President of the Society, at his present age, could bear up as he did throughout in his arduous duties. Both he and the Secretaries, and other officers of the Society, were exceedingly courteous and indefatigable throughout, and did everything in their power to promote a fair and just trial of the various machines entered on the occasion. The Jury, or Judges as we more generally call them, so far as we could perceive, were selected from among the best men of the country. They were a mixture of mechanics and practical farmers, those who understand and have for years worked harvesting machines with their own hands, and in their own fields. We shall look for such a report from the Hon. John Stanton Gould, of Hudson, N. Y., the Chairman of the Jury, as has not yet appeared on the like occasion in the United States.

KEEPING APPLES.

To the Editor of the American Agriculturist:

I was lately assured by a friend, in whom I have the fullest confidence, and I therefore, very readily, endorse his statements, that he put up a lot of sound apples last Fall, in barrels, part of which were *lime barrels*, and the rest *flour barrels*. Apples, position, packing, storeroom, and every thing else, as far as he can tell the same. On opening them in the Spring, many of those packed in flour barrels were decayed, while those in *lime* barrels were nearly as perfect as when put away. Being an intelligent and observing man, I record his statement for the benefit of your readers. WM. DAY.

MORRISTOWN, N. J.

A TURNIP DISCUSSION.

NO. II.

In our first article upon this topic, we gave some reasons for the prevalent neglect of the turnip crop in this country, and indicated our opinion that it was yet to fill a much larger place in American husbandry. It cannot be, that a crop which does so uniformly well in England, and almost as well here, among the few who have got the key to its successful cultivation, will long remain unappropriated. Indeed the exigences of our farmers, at the East, already point to this crop as the next great improvement in agriculture. The high price of beef, and indeed of all meats, must lead to the fattening of a much larger number of animals near the chief market towns, where they can be sent in on a day's notice, and sold at the highest price. This is already done by many intelligent farmers, and would be done to a far greater extent, but for the high price of corn and other fodder, suitable for stall feeding. These gentlemen find their account in this course, not only by the high prices they secure for their beeves and sheep, but by the large quantities of excellent manure they make from their fattening animals.

Now turnips will supply the great want, which is universally felt, of a cheap provender for these animals more economically than any other crop we can raise. This crop will put it in the power of all stock growers, who live within a day's journey of these markets, to fatten beeves very cheaply, and to furnish their farms with a full supply of stable manure at the smallest cost. Thus the farms may be kept in a much higher state of fertility and their cultivation be made more profitable. This plan of feeding cattle for market, we are well assured, lies in the direction of our true interests, and will soon occupy a more conspicuous place in our husbandry. Meanwhile, how shall we grow turnips, becomes a question of absorbing interest.

PREPARATION OF THE SOIL.

Whoever reads the agricultural journals of England will notice that the one thing insisted upon above all others is the fineness of the tilth of the soil. The underdraining, the manuring, the plowing and harrowing, and the place assigned the turnip in the rotation of crops, all have a bearing upon the fine tilth necessary for a large turnip crop. In this they are very thorough, and this thoroughness is one element of their success. Turnips, usually, but not always, follow wheat in the wheat districts; this is their true position in the rotation. In other districts they might follow Indian corn or rye. These crops by the previous cultivation and manure they require, and by the multitude and fineness of their roots, leave the soil in a light friable state. The preparation for the turnip crop properly begins in the Fall previous to planting. The old stubble of wheat is turned under as soon as the grain is removed, which gives a good dressing of vegetable matter to the soil. It should be plowed again, either late in the fall or early in the Spring, and be left in a rough state for the action of the frosts. This action does much to reduce the coarse clods and to make the soil friable.

It receives its final plowing and manuring about the first of June, which in this country is a suitable time for sowing the Ruta Baga variety of turnips. The land is both harrowed and rolled thoroughly that all the lumps may be broken, and the weeds be destroyed.

The underdraining and sub-soil plowing have an important bearing upon making a fine soil. The stagnant water is thus taken out of the subsoil, and the rains pass down freely through it, not only bringing ammonia to act chemically upon its particles, but the water itself acting upon them mechanically. A new stratum of soil is also subjected to atmospheric influences, and the work of disintegration goes on far below the common depth in undrained soils. Every one can see at a glance the advantage of this thorough preparation of the soil. The seed when it throws out its rootlets has nothing to do but grow.

MANURES

The main reliance in England, as it always must be, is that of the yards and stables. Guano, bone dust, unburned bones dissolved, are only adjuncts for use in the drill, or for applications to the growing crop. The stable manure is carried out in the winter, or early Spring, in a fermenting state, and kept in heaps, until it is ready to be plowed in. These heaps are turned over two or three weeks before, use to help the decomposition. It is generally conceded, that well rotted manure, especially upon light soils, does much the best for the turnip crop. The theory is that light soils demand a very large amount of vegetable matter for so succulent a crop as the turnip.

On soils of muck and peat, concentrated fertilizers may be used to more advantage. These, in this country, should be applied in the early Spring and plowed in. Peruvian guano is altogether too powerful to be applied to the soil at the same time the seed is sown. Bone dust, and *good* superphosphate of lime may be used with the drill in sowing the seed to great advantage. We have raised our best Ruta Bagas by applying home-made superphosphate in the drill with the seed.

As to the quantity of stable manure necessary for the turnip crop, it depends somewhat upon the character and condition of the land. From twelve to fourteen cords is a common application to lands in good heart. If the land is light and has been badly skinned, twenty cords will be better than any less quantity. Indeed, if the ground is plowed deep enough there is little danger of applying too much manure. It is found by ex-

periment that the manure made from fattening animals is much stronger than that made from other stock.

In some soils, lime is an admirable dressing for turnips. This should be applied to lands that have an abundant supply of vegetable matter. In using stable manures for a succession of years, this matter accumulates, and a dose of lime will bring it all into activity, and make it available as plant food. Lime is also used to good advantage upon peaty soils, and upon drained swales and swamps. It should be applied in its quick state, and as fresh from the kiln as possible, and a few weeks before sowing the seed.

The quantity of lime applied to the acre varies according to the caprice, or convenience of the cultivator. Some give small dressings at short intervals, others apply two or three hundred bushels at once. On peaty soils, the application should be liberal; on gravelly and sandy lands, the lime should only be applied as the soil is furnished with vegetable matter.

Bone dust forms one of the most valuable fertilizers for turnips, and the change that has been wrought in some of the barren districts of England by its use is represented as very wonderful. Waste moors have been converted into fertile farms, and the wilderness has literally been made to blossom. The bones are used in the drill in connection with ashes, at the time of sowing the seed. The ashes facilitate the de composition of the bone dust and afford immediate supply to the germinating seed, until it can avail itself of the bone earth. From 12 to 30 bushels of bone dust are applied to the acre. The rule is about 16 bushels, and from careful experiments, it would seem that this quantity is all that one crop of turnips can avail itself of. If more is applied it goes over to the benefit of the succeeding crop, whatever it may be.

Pigeon dung, rape dust, and animalized carbon are other manures frequently used on this crop. But these are only to be had in small quantities in this country, and are not available for most farmers.

The common method of sowing turnips broadcast, is at once slovenly and wasteful. There is no apology for it except in sowing as a succession crop among corn at the last hoeing. We are persuaded that any farmer, who tries the drill system of cultivation for white turnips, will never relapse again into broadcast sowing. In the drill the crop can be cultivated, can be thinned out judiciously, and every tuber receive its fair share of aliment. The produce per acre will be much larger, and the crop can be gathered with more facility. It is still in season to sow the white varieties, and any of the Globes or Tankards will yield a good crop. Try them in drills, upon well prepared soil, with bone dust and ashes, if one have them, sowing them with the seed. Sow the Strap Leaf or Cow Horn varieties at the last hoeing among corn.

CABBAGES AND TURNIPS ON WASTE GROUND.

Who can afford to let land worth $100 an acre, or a third of that price, remain idle, while every farm product is bringing remunerative prices? If you have such unoccupied grounds, it is not too late to bring them into a crop-growing and crop paying condition. The first week of August is a suitable time to set out late cabbages, and if located near large cities, or shipping ports, they are a profitable market crop. You can also feed a quantity of them to milch cows and *fowls*, in Winter, to good advantage. The quick growing varieties of Turnips may still be sown with reasonable prospect of a good crop, by preparing the ground as advised on another column. Ruta Bagas are still in season in this and southern latitudes, but require earlier sowing at the North. An acre of ground, from which a crop of hay has just been taken, if plowed up and sown broadcast with English Turnips, will make an excellent pasture for fattening sheep upon in the Fall, or a few hundred bushels will not come amiss among the stock next winter.

A large number may also be raised *very cheaply* by sowing broadcast among corn, or after a crop of early peas or potatoes, scattering the seed just before a shower, or hoeing it in. A friend of ours, acting in accordance with the advice given at this period last year, sowed his corn field with strap-leaved turnips, and in the Fall harvested several hundred bushels. The whole expense consisted in scattering the seed and harvesting the crop.

THE WEST—THE CROPS.

During the past two months, we have journeyed some six thousand miles, principally in Ohio, Indiana and Illinois, with shorter trips of a few hundred miles in each of the States of Michigan, Wisconsin, Iowa, Missouri and Kentucky, and also in Minnesota Territory. We made numerous stops along our route, among farmers, to examine soils, crops, and modes of culture, and usually managed, when travelling by railroad, to get a seat in a baggage car, between the wide open doors, so that we could have an unobstructed view of the whole country we passed through. We have made a multitude of notes, but have no intention of inflicting upon our readers anything like a traveler's journal. Though previously well acquainted with the Western country (having passed six months at one time in examining Ohio and the country west and southwest of that State), our recent journey, like many future ones we expect to make, if we live, was undertaken mainly to *study* the different kinds of soils and crops, and the modes of tillage, &c., required. We have a store of facts and observations to draw upon from time to time, which may be useful to Eastern as well as Western readers. We have time now only to refer to

THE CROP PROSPECTS.

The earliest Spring reports of the wheat crop, and the continuous rains through almost all of May and the fore part of June, were well calculated to awaken fears of a very short harvest. We are happy to be able to report a much better prospect than has been anticipated.

Winter Wheat was pretty generally winter-killed, throughout the open prairie country in Northern Indiana, Illinois and Iowa, but farmers very generally adopted the practice, so urgently recommended by us, of sowing on Spring wheat, and harrowing it in, without plowing up what remained of the Winter crop. We found an excellent stand of Spring wheat almost everywhere, and the yield may be set down as above an average one. In Ohio, Middle and Southern Indiana, and Illinois, and in most parts of Missouri, a large breadth of Winter wheat was sown. Early in the Spring, the prospect was unfavorable, but the crop came forward far better than could be expected, and, except on naturally wet land, a generally good yield has been already secured. The ravages of insects have in most places been much less severe than last year.

Indian Corn was kept back very late almost everywhere. We saw hundreds of fields in Ohio, Kentucky, Indiana and Illinois, in which the corn had not received its first hoeing up to June 15th, and the yield will doubtless be greatly diminished, simply for want of working. Since that date, the weather has been admirably adapted to hasten forward this crop, and as "July and August make the corn crop," we shall, on the whole, have a full average yield, unless we are visited with unusually early Autumnal frosts.

Oats and *Barley* are cultivated more extensively this year than ever before, and the present prospect is promising.

The Hay Crop has probably never been better than it is everywhere, this season. We could wish there were animals enough, especially neat stock, to profitably consume next Winter all the hay in the country.

Potatoes are widely planted, but we are not yet able to speak definitely of their condition and prospects. There are rumors of bad rotting in some of the early plantings.

Fruit, especially apples, promise a fair crop.

On the whole, we can congratulate the farmers of the country upon the present and prospective abundant reward which will generally attend their labors the current year. We say generally, for there will be many exceptions, as it is certain that all who are so unfortunate as to occupy wet, undrained lands, both have and will meet with much loss, from the long-continued rains of the past Spring.

CANADA THISTLES

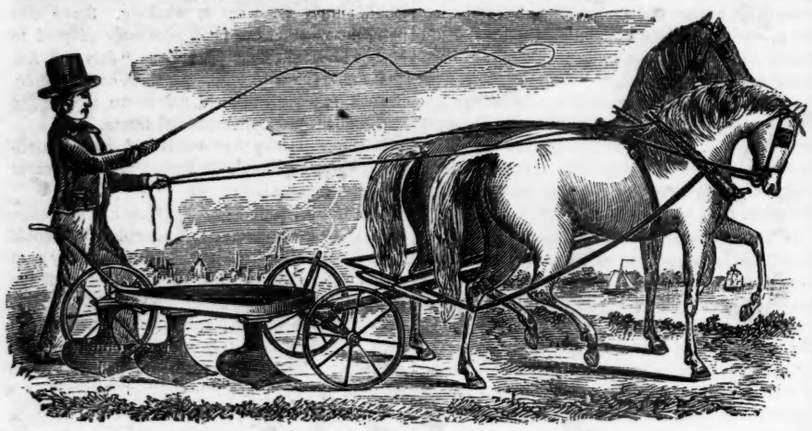
Are a great pest of the farm. They fill up both pastures and meadows, and, if allowed to multiply, will take possession and drive out the grasses. Cultivation will of course kill them, but the seed is scattered in immeasurable quantities from the plants that stand neglected in the corners of the fields and fences, and by the road-side. We have never been more struck with the wastefulness and wickedness of Virginia worm fence, than in travelling through the districts infested with this weed. Every corner of the zigzag was full, and securely nestled beyond the reach of scythe the neglected pests scattered their prolific seeds.

It is commonly recommended to cut them while in bloom, an inch or two above the ground, so that the hollow stalk may be filled with water with the first rain, and the root be killed. This may be effectual, if the rain comes seasonably; but we doubt if anything short of thorough cultivation will redeem the land that is already stocked with this plant. Every farmer should see to it that his pastures, fences and road-side, are thoroughly cleansed of this pest. Mowing will prevent them from going to seed, and, if followed up vigorously, will kill them. No plant can long survive the constant cutting of its stem and leaves. Let the first work after haying be the destruction of the thistles.

CHICKENS VS. CHINCH BUGS AND PLUM WEEVILS.

We see it reported in the Southern Planter, that a hen and chickens placed in a coop in the corner of a wheat field, where the chinch bug had commenced its ravages, proved to be an effectual check upon the insects thereabouts, though they did considerable injury out of the range of the chickens.

The chinch bug is only one of the destructive insects which chickens are ever ready to pick up. In our yard stands a black-heart cherry tree, the fruit of which was quite wormy last year,—as is often the case with this variety. This Spring we placed a chicken coop with its occupants near the tree, and secured a full crop of fruit, showing no appearance of worms. The insects, as they emerged from the ground in a winged form, were so effectually picked up that they failed to deposite their eggs in the fruit. Of course there will be a short crop of *worms* next season.



HILDRETH'S IRON GANG PLOW.

THE GANG PLOW.

This implement we regard as a very useful one upon every farm. But though manufactured in various forms for several years past, they are still far from being in general use. This has resulted in part from an ignorance of their utility, and in part from defects in their construction. Probably the main reason for their not being more widely diffused is in the fact that no person has held a monopoly of their manufacture, and therefore no one has been interested in pushing their claims into notice. This is the case with many of the most useful implements, while inferior articles have met with extraordinary sales, owing to the energy, ingenuity, and sometimes impudence of the manufacturers.

The "gang plow," as its name implies, is simply the arrangement of two, three or more small plows in one frame, or gang, so that two or more furrows may be cut at one movement of the team. *Three* plows are generally set together. In the old form there are three pieces of timber framed together, side by side, and a single plow set into each. A pair of handles is placed upon the frame to guide it, and wheels are arranged to regulate the depth. This form we have used, and would certainly have one of them, if we could get no better, for all light plowing, cross plowing, plowing in seed, &c. We have recently found a better one, however, which we are prepared to recommend as decidedly superior to any thing else of the kind we have yet seen. We refer to the "Iron Gang Plow" illustrated above. After thoroughly examining its construction, and putting it to the practical test with our own hands, we are so highly pleased with it that we take pleasure in calling special attention to its claims, not so much to benefit the manufacturers as our readers, though the inventor, Mr. Hildreth, certainly deserves a "benefit" for the many ingenious improvements he has added to various farm implements during a dozen or twenty years past, especially so, as he seems more intent upon going on improving rather than to stop and reap the benefit of his labor.

The iron gang plow is wholly constructed of iron. The frame which is triangular or three-cornered, is of cast iron, but firmly bound with a heavy wrought iron strap to guard against accidental fracture. This frame is supported by three wheels; one of them running in the furrow, acts as a complete guide, and the implement *requires no holding*. A boy, able to drive the team, can use it as well as a full grown man. The axle of the forward wheels is attached by a pivot or bolt, so that the plow can be turned around readily. There is a very simple arrangement for raising or lowering each wheel, so that it will cut any depth, or the plows can be raised up in driving from field to field.

The plows are so attached to the frame that upon striking a fast stone a simple bolt will first give way, and thus save the plow. There are several other ingenious and valuable arrangements, showing the skill of the contriver which we have not space to describe minutely. We confess to being unusually pleased with this implement and its performance, and it will we believe give general satisfaction. It will come in good play upon summer fallow or grass and clover fields turned over to prepare them for wheat. Wheat can be sown directly upon such fields, and the gang plow will do the triple work of stirring the ground, covering the seed and turning under the weeds.

As the three plows cut from 25 to 30 inches in width, a single team will go over four to six acres a day unless it is desired to make the final plowing quite deep. This implement is well adapted to plowing in grain sown broadcast. It is also made with a sowing apparatus to scatter the seed in the furrow which is said to work finely, though not having seen this apparatus in operation we can not speak from personal observation. Without the seed sower the implement is sold at $20 to $25. We believe they are not yet on sale generally, and those desiring to make further inquiries will need to address the manufacturers as noted in our advertising columns.

Never grow a bad variety of anything, if you can help it. It takes the same room, and wants the same attention as a good one. Never buy cheap seed.

Never waste animal or vegetable refuse. The very soap-suds from the laundry are rich manure.

A BEARISH MOVEMENT IN THE PORK-MARKET.

"Old Settler," a correspondent in the Prairie Farmer, gives all pork-eaters a stumper in the following questions:

First—Why was it that the Jews, the chosen and favored people of God, were forbidden the use of the hog, if he is healthy food for man?

Secondly—Why did Christ, the great doer of good, deprive the Gallileans of two thousand of their hogs by turning them headlong into the lake, if they were fit food for man?

Thirdly—Why is it that scrofula, that dire disease, in its many forms, that is sweeping its thousands from our midst yearly, derives its name from the hog, unless that his use for food originated that disease in man?

Fourthly—Why is it that the Jews are free from scrofula, though living in every civilized country the world over, if it is not by abstaining from the use of the hog, as being unfit food for man.

Whether this is a bear's argument to bring down the high prices that prevail for this flesh we are unable to say. We should not be surprised to learn, however, that Spring pigs were enormously dear in "Old Settler's" neighborhood, and he was setting a trap to bring them down. We give a Bull's response to his triumphant interrogations.

First—For the same reason that coneys, hares and other animals, now eaten, were forbidden to the Jews. The object was, by special enactments to make the Jews different from other people, to separate them by their dietic habits and domestic usages from the heathen tribes around them. It was also designed probably in these arbitrary distinctions between things clean and unclean, to foreshadow the eternal distinctions between right and wrong.

Second—For the same reason, that God in his Providence is now destroying neat cattle by the murrain in some parts of Europe, in immense numbers. For the same reason, that the Almighty deprives men of their property in other forms. Other things beside pork may be idolized, and so become perilous to the souls of men.

Third—It may have been from a thousand and one other reasons. There is some doub about the fact assumed. But if true it may have been because swine themselves had the disease, or some thing like it, or it may have been because of a superstitious notion that swine's flesh had some thing to do with the disease. A certain weed is called snake root from the fabulous idea that it will cure the bite of poisonous serpents. As a matter of fact, the root is no better for that purpose, than it is for curing the itch or measles.

Fourth—The fact assumed is doubted. It is difficult to show that among people numbering six millions, no one ever died of this disease in the course of eighteen centuries, especially when they all hate pork-flesh so much that they would be morally certain to call it by some other name, if they thought scrofula smelt of bacon even in its origin. Will "Old Settler" try again. Meanwhile, we beg leave to assure him that Spring pigs are 18 cents a pound live weight—not a cent less.

WONDERS OF THE BEE-HIVE.

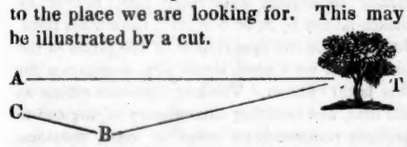
Number II.

We caught the Bee away from its home, and had a fine chance to look at its head and legs and wings; but the little captive did not tell us much about the bee-hive. What prisoner of war can be expected to reveal all the secrets of the camping ground? Still we may get something out of this poor insect, though it has "no speech nor language," and its "voice is not heard." We must ask it to show us the way to its nest, first entering into a treaty of alliance and friendship with it. It is the habit of the bees, when they are collecting honey, to start for home as soon as they have secured a load. So, having captured several bees that are buzzing around the flowers, we will put them on a plate with a glass tumbler over them, and give them a teaspoonful of honey or syrup. See, how glad they are to find it! They seem to be as hungry as a boy just out of school; and soon they will be as good-natured as a child with its hands full of sugar-plums: for two peculiarities mentioned by Mr. Langstroth are curious and important:

1. "Bees cannot, under any circumstances, resist the temptation to fill themselves with liquid sweets."

2. "A honey bee, when it is gorged or filled with honey, never volunteers an attack, but acts solely on the defensive."

We can see. through the glass, how they use their proboscis to drink with: and in a few moments we find them restless and anxious to escape. We lift the glass and allow one to crawl out. It is very deliberate and careful, for it has a heavy load; but presently having crept to the highest point it can reach, it takes wing and sails round in a spiral curve, mounting higher and higher till we almost lose sight of it, when it darts off in a *bee-line* for its home. So that one has gone perhaps half a mile, perhaps two miles; we cannot tell: but possibly, if we waited for it patiently, it would come back with other bees after a while, having in some way told "the folks at home" about the good fare we gave it. But as it is probable that some of the other bees came from the same hive we will not wait for its return. We will take the others up the road for a quarter of a mile or so, and let out another bee there in the same way. Now if this came from the same home, it will also go back there in a bee-line, and we can very soon judge how far off the hive is; but if it goes in a very different direction, we must let out a third, and perhaps a fourth, till we find one aiming for the same spot as the first. Then we must follow up its course till we come to the place we are looking for. This may be illustrated by a cut.



We let out a bee at *A*, and it flies directly to its home, which we will suppose to be at *T*, in the hollow trunk of an old tree; then we go down to *B* and release another, but it came from a different stock, and goes off toward *C*. A third, however, goes toward *T*, and at the point where its track meets the track of the first we shall expect to find their common home. As we approach the tree, we may find it well to release one or two more, to direct our search.

These hints may be of service to those who are disposed to become bee-hunters, and to mark, for fall, the hollow trees to which they follow the bees during the summer. We introduce them here, chiefly as an illustration of some of the wonderful *instincts* of the honey-bee; for when we get ready to pry into the hive itself, we shall go down to neighbor Jones, and ask the privilege of examining his apiary at our leisure.

The instinct of the bee takes it directly home; and from this we can judge of its wonderful vision. Flying at a considerable distance from the ground, and without a compass to direct its course, it seems to have no difficulty at all in distinguishing its land marks; but makes its way, so far as we know, with equal ease over prairies and meadows and timber land. How strange that those little eyes should see so far, and that those wings should carry them in a straight line to their home! But still stranger is the fact that if a hive is moved but a few feet from its proper stand, the bees returning from the fields are unable to find it in its new location. Their acuteness of vision seems then to fail them, and they fly in circles around the familiar spot till they die of mere fatigue. Their instincts do not anticipate any such catastrophe as the removal of their dwelling. If, however, the hive of bees is carried two or three miles from its stand, the bees on leaving it, finding new objects around the hive, take their bearings before they go far away, and so become familiar with the new situation. In some countries this fact is turned to good account, and hives are transported from place to place in search of pasture ground. On the Nile, for example, large numbers of hives are placed on a boat, and are carried up and down the river, stopping at different places as often and as long as the supply of honey demands. The bees, all returning in the evening, may be carried several miles at night, and the next morning they have to learn the features of a new country.

The bee has other senses than that of sight, and it is remarkable that so much of its work should be done in perfect darkness. It comes in from the field in the glaring light of noon-day, and is perfectly at home in all the passages and windings of a hive as dark as midnight. Darkness is not essential to its work, but it does not impede it; and the ordinary work within goes on as well by night as by day. There must be some wonderful powers of *feeling* to guide the bees in such a labyrinth; and the *antennæ* and *feelers* undoubtedly are designed to help them in the dark.

The sense of *smell* is also very acute. Probably bees distinguish others belonging to the same hive by their individual odor. If a strange bee attempts to force his way into a hive where it does not belong, it is likely to be repulsed at the door. If different colonies are united, they are frequently disposed to have a fight together, but their hostility may be entirely overcome by giving them all a sprinkling with water, strongly scented with peppermint or some such odor. The scent of honey will attract them to a box where there is nothing to be seen; and in large towns the perfumes of the apothecary sometimes draw them by hundreds to his store, where they try in vain to get at shaving soaps and soda-water syrups. Nothing provokes a bee more than the odor of its own poison; and probably it is the fragrance of flowers that directs its course from field to field, and from tree to tree. To some persons also they show a special dislike, and the human breath is particularly offensive to them.

The sense of *taste* is nearly allied to that of smell, and we suppose no one who has eaten honey will be disposed to doubt that the bee has "a sweet tooth" somewhere in its head.

The sense of *hearing* is not so easily marked. It is doubtful whether bees pay any attention to noises made by man. If they do not, it is in vain to attempt to delay a swarm by beating pans and kettles in the old fashioned way. Some persons still believe that such a noise disconcerts the bees by drowning their own hum; but the best informed have no faith in it. Still it seems possible that the bees do communicate with each other by the noises which they are able to make. Their hum, produced by the motion of the wings, varies at different times, and has its lively as well as its sad mood. Other noises are heard within the hive, which have some special significance, even if they do not convey information from one insect to another.

We have spoken now of the wonderful instincts and powers which excite a desire to know more of insect life, and to penetrate the mystery of the bee-hive. But the prospect is discouraging, for the hole in the tree by which the bees enter is very small, and too many armed sentinels are there, to make it seem very safe to look into that dark cavity. Nor is the common hive much better. So we must watch awhile longer on the outside, and question the people that come out from the city. They are very busy, and cannot loiter, but we will coax them to tell us the latest news as they fly by, and perhaps we shall get on such good terms with them, before the summer is over, that they will let us see their nurseries, and cradles, and store-rooms of sweet-meats.

Dogs.—We agree with all who express the opinion that dogs are a great loss in an economical point of view. Take all that it costs to keep the dogs in Ohio, and add it to the value of all the stock they kill, and of all the time they are the means of wasting, and all the quarrels they occasion, and all the hydrophobia they cause, and place the sum total on one side of the account. Then place on the other side all the *real* good they do, and we question whether the most devoted dog-worshipper would not own that the idolatry was a costly concern. With a very few exceptions, we believe it would be a blessing if all the canine race in our State were to disappear and be seen no more forever.—*Ed. Ohio Farmer.*

Our opinion exactly.—*Ed. Ger. Telegraph.*

And exactly ours.—*Ed. American Agriculturist.*

HOP CULTURE DESCRIBED.

We spent a few days in July among the hop-growers of Otsego county, and improved the opportunity to observe their methods of cultivation, and to learn what improvements our farmers had made in growing a crop so famous in England. It is confined to a few localities in this country, and outside of these very limited districts, little is known of hop culture. The few who are engaged in it find it profitable, and some have made themselves independent in a few years.

The Hop (*Humulus lupulus*) is put by Linnæus in his class of DIECIA, and in the order *pentandria*. The staminate flowers are without corol, and have a five-leaved calyx, and the anthers have two pores at the end. The pistillate flowers upon the female plant have a one-leaved calyx, entire, oblique, and spreading. There is one seed within the leaf-like calyx. This description of the male and female plants is a matter of practical importance, as the male plants should only bear a small proportion to the female in a well-planted hop-yard.

The use of hops in the manufacture of beer is of comparatively recent origin, it being used in Flanders about 1500, whence it was introduced into England about 1525. Its introduction was cotemporaneous with the Reformation, and some poet who eschewed hop flavor and Puritanism alike, gave vent to his antipathy in the well-known doggerel:

"Hops, heresy, pickerel and beer
Were brought into England in one year."

It now occupies a conspicuous place in the husbandry of England, and is a profitable crop. The counties where it most flourishes are Kent, Sussex, Surrey, Worcester and Essex, and in these it is confined to particular localities. The number of acres in hops in 1820 was a little over fifty thousand. Twenty years later it was but fifty-two thousand, showing that there is but little increase in the extent of land used for this crop. The value of hops raised in England has sometimes reached the sum of fifteen millions of dollars annually. In this country the cultivation of hops is steadily on the increase.

PREPARATION OF SOIL.

The hop plant delights in a rich loam or calcareous sand, and lands of this character, lying upon lime-rock, are selected in England for the hop yards. Nearly all the farms that we visited in the north part of Otsego county have a surface soil of rich clayey loam, and the rock where it crops out, which is seldom, is either lime-rock or slate, and the slate is often very soft, or in a state of decomposition. The best lands upon the farm are usually selected for the hop-yard, and the ground is plowed a foot or more deep, and highly manured. The rule for manuring, as we learned from one of the best hop growers, was, "the more manure the better." Indeed, so general is the conviction of this necessity for the crop, that no skillful farmer attempts it without manure, and the tendency is to rob every other field to enrich the hop-yard. After thorough plowing, manuring and harrowing, the field is ready for the

PLANTING OF THE ROOTS.

These are obtained from yards that have been several years under cultivation. The plant has an annual stem, but a perennial root, and is continually throwing up suckers, which have to be removed every season from the old vine, in order to throw the strength of the vines into the flowers. Sometimes the cuttings of the old stumps, which are removed every Spring, are buried, to furnish new plants, but the principal reliance is upon suckers that come up spontaneously near the old vine. These afford a considerable source of profit, when there is a demand for them. They are sold in some neighborhoods, when the hop fever is on, as high as three dollars a bushel, but the general price is from a quarter to three-quarters of a dollar a bushel. It takes four or five bushels to plant an acre. The distance at which the hills are put varies somewhat with different cultivators. The strong temptation of those who are inexperienced in the business is to put them within five or six feet. But those more skilled, rarely put them nearer than seven feet, in rows running each way, and this we found the prevailing rule in the yards that we visited. This makes about seven hundred hills to the acre. In planting, regard must be had to the sex of the plants. The rule is, to put one male plant in every tenth hill in every tenth row, making one staminate to ninety-nine pistillate plants. Without the staminate plants, there will be hops, but there is much less pollen upon them, and the quality is considered inferior. No seeds will be formed to produce young plants, in case the cultivator wishes to raise his stock from the seed.

THE POLES.

No inconsiderable part of the capital required for a hop-yard is expended upon the poles. Those must used in this region are of cedar and spruce, and we were informed came from Canada. They cost about twelve cents each on the canal at Fort Plain, whence they are carted some twenty or thirty miles to the farms. The cost delivered is not far from fourteen dollars a hundred, making the outfit of poles for an acre about two hundred dollars. They will last eight or ten years, according to the care taken of them during the winter season. They are from twelve to twenty feet long, and two are used for each hill, inclining from each other, so that the poles, when draped with the vines, form a succession of verdant arches. They are set in this way to admit the air and sunlight more perfectly among the vines. When a hill shows unusual strength, a third pole is sometimes set, inclining at right angles to those already set.

CULTIVATION.

This is substantially like that of the corn crop, consisting of plowing, cultivating and hoeing the whole space between the rows. They have a plow that cuts a very shallow furrow near to the hills, so that the roots may not be injured near the crowns of the plants. In the middle of the spaces between the rows, the plow goes down ten or more inches. The best hop-growers are scrupulously neat about their yards, tilling thoroughly, and not suffering the weeds to grow. In one of the yards we visited, nothing was visible but hops, save a solitary daisy that the hoe had accidentally missed.

The hop requires a good deal of manure, and it is customary to give the land a liberal dressing every year, and plow it in. No crop pays better for manure than this, and those gentlemen who succeed best are found to make the largest outlays for fertilizers. It delights in manures of an oily nature, and fish are used in England with the best results. Old woolen rags and hair are also excellent manures. But the main reliance here is stable manure, with top dressings of lime, plaster and ashes. Plaster is used to good advantage.

PICKING.

This is one of the most expensive and laborious parts of hop-growing. It cannot be done reasonably with the ordinary working force of the farm, and the grower has to employ extra help when all his neighbors are as much in want of labor as himself. Females procured from the neighboring villages and cities are usually engaged for this purpose, and the wages are about two dollars and a half a week, and board.

The time when the crop may be harvested to the best advantage is very short. If the vines are cut too early, they bleed, and are injured for the next year's crop: if a little too late, the hops are injured by the frost. They should not be cut until the sap is done circulating, and the flowers are matured. Careful observers have noticed that a week's difference in the time of cutting the vines very sensibly affects the yield the following year. In picking, the poles are taken up and put lengthwise of the bin, which is some ten feet long by four wide, and is divided into four apartments. Four pickers then strip off the flowers into the bins, whence they are put into sacks, and carried to the kiln for drying.

THE KILN

for drying is a very essential part of the business, as the value of the crop depends essentially upon thorough curing. The kiln which we visited is one of the best of its kind, and cost about seven hundred dollars. It is made of cobble stones and mortar, in circular form, the walls about two feet thick, and running up about sixteen feet high. The stone wall is surmounted by a conical roof with rafters twenty-two feet long. The point of the cone is left open, and protected by a revolving hood, like the smoke-jack often seen upon the top of a chimney. The apartment within the walls is about twenty-two feet in diameter, and is cut into two stories. On the first floor is the heating apparatus, consisting of a large box stove, and about a hundred feet of pipe winding around the walls of the kiln, so as to distribute the heat uniformly in all parts of the building. The floor above is made of slats two inches by one, and set edgewise about two inches apart, and covered with a thin cotton cloth or strainer, so as to hold the hops, and yet admit of a free passage of the heated air. On this perforated floor the hops are laid to the depth of two feet, and are subjected to the heated air for about twenty-four hours. They are then removed to the adjoining storage room, where they remain two or three weeks, and are packed and pressed in bales.

The crop is usually bought up by speculators the Spring before it is harvested, the farmer agreeing to deliver at a given place and time his whole crop, at a specified price. The speculator sometimes pays a part of this price down, in order to secure the bargain. If hops rise, he sometimes makes a fortune in a single season. If they fall, he is ruined. This is a favorite crop for speculation, not only among residents in the hop districts, but in the city. A single house in this city sunk two hundred thousand dollars in this operation last year.

As to the tendency of the crop upon other farm interests, we found the opinions of intelligent men much divided. All agree that for a time the crop is profitable, and nothing brings so large returns in money. Others claim that it leads a farmer to neglect everything else, and if he makes money by it, he is certain to ruin his farm. Judging from the appearance of the farms in the towns that we visited, there is a foundation for this latter opinion. The hop vines are eating up the land, and reducing the capacity of the soil to produce remunerative crops of corn, potatoes, oats, grass and hay, to which this region is so admirably adapted. We trust the day is not far distant when a wiser husbandry will prevail, when the landholder will feel that he is identified with his homestead, and that he has no right to enrich himself at the expense of his soil.

CATTLE DISEASE IN OHIO.

[The following communication, for some reason, failed to reach us in time for either the June or July numbers.—Ed.]

To the Editor of the American Agriculturist.

In consequence of the appearance of a severe and fatal disease among cattle in some parts of Portage County, Ohio, the past Winter, the Farmers' Association of Edinburg appointed the undersigned a Committee to investigate the subject, and ascertain, if possible, the nature, cause, and cure of this malady. The report of this Committee we wish to forward for publication in the *American Agriculturist*, together with a resolution adopted by the Association at the close of an instructive discussion upon the adoption of the report.

REPORT.

The disease is not caused by freezing, neither is it what has been called hoof-ail, foot-rot or fouls. Its first symptoms seem to be a deadness of the end of the tail, extending upwards, till, in some cases, the flesh separates from the bone and falls off. About the same time there is a purple appearance just at the edge of the hair above the hoof. It then commences swelling, becomes feverish, extending upwards to the ancle, and in some instances causing a separation of the coffin bone from the pastern joint. The lameness is confined entirely to the hind feet. The blood is pale and thin, and in most cases, the animal retains a good appetite till near the last. The cause we apprehend to be feeding on hay containing ergot, (a parasite fungus growing within the glumes of various grasses,) in considerable quantity. We arrive at this conclusion from the fact, that the hay fed by an individual who lost a large number of cows, contained much of this article, and also the person from whom he purchased the hay, lost cattle from the same disease; and in both instances, cattle fed on other hay, were not affected.

In every well-marked case of this disease, it has been ascertained that the hay on which the animal was fed contained the ergot. The hay in which the ergot was found the most, was the kind called June or Spur Grass, growing in old meadows, where the soil is rich, and the growth rank. The severe frost on the 31st of May, 1856, is supposed by some to have been the cause of the disease in the grass, by destroying the vitality of the seed before it arrived at perfection; while, by others it is attributed to extreme warm growing weather, in June, causing an overflow of sap.

Although we consider the whole subject involved in much obscurity and uncertainty, and requiring further investigation, yet we are satisfied the best manner of treating the disease, is immediate resort to cauteration, and a change of diet, whereby an increase of animal heat and vitality may be obtained, at the same time making an application of suitable remedies to the affected parts. First, by cutting off the toes until they bleed, and blue vitriol moderately applied to the affected parts has been found beneficial in several instances. A free use of salt and charcoal, in various ways, is undoubtedly a good preventive; and a careful examination of the hay or grass on which the stock is fed is indispensable. If found in hay, it may be removed by threshing or trampling. Of the specific nature and properties of ergot, in hay, or whether it is identical with that of rye, we are not well informed. The immediate effects of the latter, in large doses, is well known; but it has no affinity to the ordinary known effects of vegetable poisons. What effect would be produced by its gradual and continued use, we are not in possession of sufficient information to warrant us in speaking positively; but we do suppose, after a careful examination, that it operates on the blood of the animal, and unless immediate remedies are applied, it proves fatal.

P. Barron, M. D., J. Y. Pearson,
R. M. Hart, Esq., Jonas Bond,
Committee.

The following resolution was unanimously adopted:

Resolved, Inasmuch as the evidence adduced is conclusive, that ergot in hay is the cause of this disease, yet the Association cannot decide that it is the real cause of a poison being introduced into the system, owing to our inabitity to analyze this substance; therefore, we desire to ask the Editors of our Agricultural papers for more information, and to obtain the chemical analysis of ergot.

Edinburgh, Portage Co., O., May, 1857.

For the American Agriculturist.

FROM OUR WATERLOO CORRESPONDENT.

Guano and Concentrated Manures.—It is gratifying to notice among the advertisements in the Agriculturist so many competitors in the sale of concentrated manures; the more especially as the manufacture of tafeu from city night-soil, and the ammoniated powder which Mynheer Schwager makes at that little barren sea island from the defunct animals of Gotham, does work great good to the propriety and health of the city, while it returns to the vegetable kingdom a part of those indispensable elements, the whole of which has so long been wasted and lost! When such men vend only the unadulterated article, they are the true benefactors of their race. But why does M. Schwager set the price of his untried amendment above that of Peruvian guano, even if the latter does hold its ammonia by a more volatile tenor than does his animal fertilizer, as he intimates, for it is only in the state of a carbonate that ammonia can perform its true office in the soil, as the truly practical Boussingault tells us that the sulphate of ammonia is always changed to a carbonate in the soil before it becomes available to plants?

More Nitrogen.—As the sailor said, "brandy was the best thing, and more brandy the next best." The same may be said with much better reason of nitrogen. How often we hear the farmers say, "the soil cannot be made too rich for corn;" nor can it for most other cereal or herbaceous crops after decomposition has added hydrogen to the nitrogen, and formed the carbonate of ammonia, and *that* salt has had time to prepare and leaven the whole lump *au fait* to vegetable nutrition. In a virgin soil, the whole recumbent surface is thus prepared by Nature's hand, the carbonic acid of decaying vegetables holding the volatile ammonia ready to perform its office as soon as the surface is stirred up and planted. On such a soil, that delicate feeder, wheat, finds its true nutriment, and attains perfection. Hence, let every farmer or gardener take a hint from Nature, and plant his coarse feeders, corn, oats, roots—potatoes sometimes excepted—on land treated with crude unfermented manures, and the more delicate feeders on the same soil the next year, either without extra manure, or with liquid or well-rotted manure. No man knows until he tries it, how much ammonia may be saved by keeping his manure under cover, and applying it in a liquid state, either to a grass-plot or hoed crops; in this way, hen dung, the liquid from the privy, or a little dissolved guano that is rich in ammonia, may be made the substitute for many loads of ordinary long-exposed stable manure. Let every gardener try i.

Weeds a Blessing.—When I see a crop struggling with sterility instead of being choked with weeds, I feel as the doctor does when called to a patient in the cold stage, who is without stamina enough to raise a fever. In ever-blessed alluvial Western New-York, I have seen many a field and garden crop choked with weeds, which only made me more in love with all-provident Nature, in proportion as I grew sick of lazy, shiftless, ignorant man. But on the drift formations at Brooklyn and Staten Island, I have seen garden crops struggling in piteous, weedless sterility; insoluble silex seemed to reign triumphant in default o every mineral or vegetable alkali, in the shape of potash or ammonia; but the mercenary gardener said to me with some truth, that "the beets were sweeter for being so very small." Where weeds grow there is positive evidence that there is life in the soil, that Nature is true to her own, and that man's improvidence alone creates a vacuum. If he will only give a substitute for her organizing weeds, she will most generously second his efforts; but unless he returns something to her soil as a *quid pro quo* for the crop he removes, it soon reaches that state of sterility where the weeds, her panacea for a neglected soil, cannot find sustenance, and the desert has begun.

Grass the Greatest of Blessings to Agriculture.—I once looked upon an extended fenceless plain overgrown with May weed (*Anthemas Catula* of Zinn), at the South, which once produced luxuriant crops of cotton. When I asked why these plains had not been seeded to grass before the fences were gone or removed, the reply was, "grass would not grow in this sun-stricken region" Clover, the largest rooted of all, grew well in Fall and Winter, but the first o second Summer gave it its quietus. On no large Southern plantation have I ever been so impressed with the evidences of domestic comfort as on the smallest grass-growing farm in Western New-York, even in those elevated regions where Indian corn is reduced to that early-stunted variety which yields barely enough to fat the pork and make the Johnny-cake of the farmer's family; for here is clover-scented butter, fine-creamed cheese, *raised*, not greasy wheaten biscuit, and every other substantial article of food the epicure might envy, served up with a neatness which smacks of no "help." Here are fat, sleek cattle, and laughing cows, with white clover pasture, knee-deep in mid-Summer, and the best shelter, and sweet clover and Timothy hay and oats in Winter. How different is all this where white clover never shows its blossoms, and Timothy, o even red clover, can hardly be coaxed into a respectable growth; with no herbaceous substitute but the blades of the gross variety of Indian Corn, whose stalks are ligneous and inedible. In the hog and hominy country it is still worse, for there the hogs eat up all the corn, and the negroes all the hogs, while the poor mule is only enabled to live through the cold sleety winter, by his great powers of endurance, and his capacity for long suffering.

Oceanic Manures.—From the south shore of Long Island to the Carolinas, the rockless, sandy coast is unfavorable to the growth of marine vegetables, but farther east and north, the rock-bound headlands around the Bay of Narraganset send to the narrow beaches after every eastern gale, a ripe crop of ribbon and rock-weed, full of mineral and animal matter, in the form of crustacea, zoöphytes and molusca, both living and dead. Menhaden fish is also a great manuring crop. If leaner fish afford more nitrogen, the greater number of menhaden to be taken makes up for the excess of carbonaceous matter they contain, and this is of economical, if not of manureal value.

Waterloo, N. Y. S W.

STACKING GRAIN.

If grain is to be stacked in the open field, it is important that it be well done. The recollection of numberless moldy, sprouted sheaves, as we have seen stack after stack removed to the barn or threshing grounds, leads us to give a word of caution on this subject.

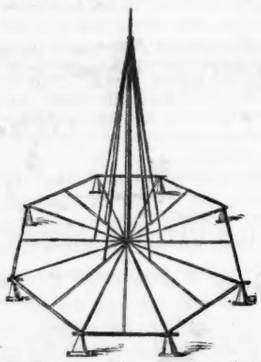
Some farmers have permanent "stack-yards," and others make their yards each year, contiguous to their principal grain fields. The most perfect cheap protection to out-door grain is afforded by a cap roof supported by four corner posts, enclosing a square space for the stack. The posts have holes for a greater part of their length, and the roof is raised or lowered at pleasure, and supported in its position by strong pins.

In extensive grain regions, however, most of the crop has to be stacked out without cover, and the form of stack here shown is a good model.

The first important requisite is a good, *well-ventilated* foundation. A very common method is to lay a tier of rails upon the ground, at a distance of two or three feet apart, and cross rails over these, upon which the stack is commenced. If this cross-work of rails is carried sufficiently high, it answers pretty well. But we have seen so many wet and moldy bottoms, that we urge special attention to this, the starting point, and recommend posts set in the ground as above. These need not necessarily be conical, as shown, but may be simply pieces sawn from logs, and set on end. They may be as numerous as desired, depending upon the strength of the bottom timbers, and the firmness of the ground. Of course they should be set about the centre, as well as the outer part of the stack. Upon these posts lay stiff rails, or small timbers sufficiently close to prevent the sheaves from falling through. A central pole, set firmly into the ground, assists the builder to carry up the sides evenly, and prevents settling towards one side.

Commence by laying a tier of sheaves around the centre forming the base of the stack, with the buts outward, packing them closely. A second tier is next laid down, with the heads extending a little over the buts of the first, and so on, always keeping the top or seed end of the sheaves highest, and towards the center. This is important, so that any water finding its way in at the top, will run towards the outer edge, rather than the centre of the stack. Continue in the same manner, laying the inner tier, and binding it with the second, and so on. The sides should be carried up, either perpendicular, or a little projecting, as shown in the cut, for some six or eight feet, according to the size of the stack, and then be gradually drawn in. Two important points should be strictly observed at this stage, as indeed throughout its whole construction, viz.: keep the centre a little the highest, and the outer circles well bound by the inner ones. Having shaped the top, as seen above, by constantly drawing in, and elevating the centre still more, until it reaches a point near the top of the pole, allow it to stand for a few days to settle, if the weather is favorable, after which, it may be so thatched and capped with rye straw, so as to render it water-proof.

A stack finished in this manner may not only stand for a long time uninjured, but is quite pleasant to look upon, and a goodly number of them betokens a thrifty farmer.



In England, where there is less dry weather and sun, in addition to the elevated foundation, they are accustomed to insert upright poles, with the lower end fastened to the timbers, one and a half to two feet distance from the central pole, and confined to it near the top, as shown above.

The grain is stacked about these poles in such a manner that an opening is left in the centre, extending to the top. The supporting posts used are often capped with flat stones or plank extending over them, to prevent rats and mice from getting into the stack.

TIM BUNKER ON THE WEAKER BRETHREN.

Mr. Editor.—I see by a former number of the *Agriculturist* that you had your reporter up here, taking notes at our Farmers' Club. I had no idea that he was around, or I should have fixed up my remarks in a little better shape, and dove-tailed the argument on mixed papers a little tighter together. I hold that what a man sees fit to print, should be water tight. I want you to understand, and the public also, that I am not responsible for anything the reporters say about me, and that none of Tim Bunker's sayings are the genuine article, unless they come direct from Hookertown, and are over my name. You see they have got to counterfeiting my name already, just as they have Perry Davis', the inventor of the pain killer, and old Dr. Townsend's sarsaparilla. It was only the other day, that I saw a lot of my sayings in the Times about bad butter, that were never designed for the public at all. It was a private talk between me and my old friend Jones, and who in the world put them things in that paper, is more than I can tell. It must be confessed, however, that he got the substance of what we said across the table, pretty near correct. I suspect Jones, the sly dog, knows more about it, than he would like to tell.

I took my pen in hand, to say a word about a class of farmers we have up here in our neighborhood. You see, in the church, they have a kind of members, that the minister calls "the weaker brethren." They don't seem to have faith enough in them to make their religion of any account. They are always at the tail end of the heap, and like the stragglers in a flock of sheep, under the wall, or stuck fast in the mud. They are a disgrace to the cause.

Now we have some Hookertown farmers, that make me think of these weaker brethren 'fore all the world. They don't read the papers, and don't believe in good farming any more than such disciples believe the gospel. You can not get them to take the agricultural journals and they laugh at all the new tools that have been invented to help farmers in their work. Instead of cleaning up their fields so as to use a mowing machine, they sweat over the scythe at the rate of an acre a day. Instead of having a barn cellar to save manure, it is mostly wasted in the yards and highways. Instead of sheltering cattle, in the cold snowy weather, they fodder them out at a stack all winter. I do not know but I am wicked, but I wish every one of them could have been out that cold night in January, when the mercury froze. I think they would have learned to pity dumb cattle. I find such farmers are always complaining of hard times, and are never able to pay their debts. They are always running down farming, and talking about emigrating to the west, just as if a change of place was a going to change their characters, and make such shiftless farmers, thriving men.

Now I have been thinking that these weaker brethren were living on "Missionary ground" as the saying is, and that the farmers who read the papers ought to come over and help them. It is no use for you to advertise your paper on this account, for such people do not take any paper either political or religious. If one of your agents were to come along, and ask them to subscribe, they would feel insulted, if they could get near enough to them to make their business known. I am going to propose to our Farmers' Club to go out among these weaker brethren and see if we can't get them to take the papers, and mend their ways. You see they can't say we are mere book-farmers, and that our notions are all moonshine, for they know that our farms look enough sight better than theirs, and that our farming pays, so that we have money to lend. After all, Mr. Editor, there is nothing like an argument with the hard coin at the end on't. It does weigh. They appreciate the farming that brings the clean cash. That is the kind of farming we find your paper recommends, and as it is a poor rule that don't work both ways, I send you the clean cash for a dozen subscribers gathered among these weaker brethren. Consider these as the first fruits.

Yours to command,

Timothy Bunker, Esq.

Never subject a plant to a rapid change of temperature. Sudden check or sudden excitement are equally injurious.

Never tie up lettuce or endives, or earth up celery, except when perfectly dry. They are liable to spoil, if you do.

HARDY ORNAMENTAL VINES.

We have recently referred to the desirableness of planting shrubbery, and various other flowering plants around the farm-house and all country dwellings. But we have not spoken with that particularity and emphasis which we desire respecting *climbing* plants. No building—unless it be a bank, post-office, store, or some structure of the kind, devoted exclusively to business—is complete without these leafy adornments. It is with human dwellings as with human character: they should exhibit a gracefulness and beauty, as well as strength and rigid propriety. A man who is always very proper in his ways, and as systematic as the multiplication table, may make a very good statue, but he is not a complete man unless he has some of the juices of humanity, is winning, graceful, loveable. So with a house: it is not enough that it is firmly built, of ample size, and kept in good repair; it needs the surroundings of trees and lawns, of birds and flowers, and clambering vines. Then it becomes home-like, and wins our hearts. Moreover, there are few houses so perfect in proportion and finish as not to require the slight concealments and embellishment afforded by vines. A Trumpet Creeper, shooting up to the second story window, and hanging its tubular flowers about the gable, will atone for many an oversight in the plan of the dwelling. A Chinese Wistaria rambling over the sides of a house, or suspending its clusters of pearly-lilac blossoms over the doorway, does much towards supplying the absence of stucco and elaborately carved verandas. A climbing rose swaying about an open window in Summer, and wafting its fragrance through all the dwelling—as does a "Baltimore Belle" at the window where we now write—what can be more charming?

Happily for us, the list of hardy ornamental vines is so large that every taste can be suited. Among the best plants, we mention the following:

American Ivy.—This is sometimes called Virginia Creeper, and, by the botanists, *Ampelopsis*, but we prefer the simple name, American Ivy, because the plant is indigenous in nearly every part of this country, and resembles the ivy of Europe in many respects. It has but an indifferent flower, but it is perfectly hardy, grows rapidly in any soil or situation, is not infested with insects, has a dark green, glossy foliage throughout the entire Summer, which in Autumn fades off into a most brilliant crimson. Mr. Downing says: "It will grow anywhere in the coldest situations, and only asks to be planted to work out its own problem of beauty without further attention." We would recommend this as the best vine to plant by the side of churches in the Northern States, especially those built of stone or brick. In a short time, it will cling to the wall, and clothe its surface with a beauty equal to any carving in stone.

Chinese Wistaria.—We rank this second to the one just named, because it is less hardy. North of the latitude of Albany, it is frequently injured by the Winter: south of that, it must stand as the peer among ornamental vines. It grows luxuriantly, and has beautiful pale purple blossoms, which appear in April and May. The flowers hang in clusters like those of the locust, only much larger. In some seasons the vine flowers a second time. Amateurs sometimes plant it by the side of a pole on the open lawn, and by frequent pruning for several years, give it the habit of a weeping tree.

The Honeysuckles.—Of these there are several varieties, possessing various excellencies. Where the climate will permit its cultivation, nothing can be finer than the Japan or Chinese Twining, but for northern gardens, it is too tender. The best plants of this family, all things considered, are the Scarlet and Yellow Trumpet Honeysuckles. They are hardy, are not infested with insects, grow fast, and bloom all Summer.

Prairie Roses.—A few years ago, we ranked these rather higher than we now do. Their luxuriant growth and prodigality of flowers are certainly in their favor. But that luxuriant growth is often killed to the ground in Winter, and at best, the season of flowers is only a short one. Added to this, the vines are annually infested with insects which destroy their beauty, unless warred against. If one will take the pains to lay down his vines on the ground every Fall, in cold latitudes, and to syringe them with whale oil soap diluted with water every Summer, the Prairie Rose will deservedly stand high on his list of vines. This has been our own practice for several years, and in our view, it pays well: but most people will not take this trouble, and for them, therefore, we do not highly recommend these vines. To those who will take care of them, we say, plant Queen of the Prairies, Baltimore Belle (desirable for its Tea Rose odor), Eva Corinne, Mrs. Hovey, and Pride of Washington.

Dutchman's Pipe—(*Aristolochia sipho*) called also Birthwort, and Pipe Vine. A bold and striking vine, suitable for rambling over a rustic arbor or cedar pole. Its huge round leaves hanging one over the other, completely exclude the rays of the sun. Its flowers are more odd than beautiful, resembling a Dutchman's pipe more than anything else.

The Grape Vine.—We should have mentioned this earlier in our series, had we not regarded it as belonging more appropriately to the fruit garden or to the sunny sides of houses, barns, sheds, &c., where it can be pruned and trained solely for its fruit. If used for ornament, and allowed to ramble at its own sweet will, we think the grape vine very beautiful. And if any one of our readers is so practical as to discard from his dwelling all embellishment that is not strictly useful, we would certainly humor his prejudices so much as to advise him to plant grape vines by the side of his front porch.

These, though not all, are undoubtedly the best hardy ornamental vines. Some persons will hardly pardon us for omitting the Trumpet Creeper, and the variety with larger and cup-shaped blossoms; but with all our admiration for it, we must leave it out of our list of *hardy* vines. The Clematis of several sorts—not forgetting the sweet-scented *Flammula*—has great merits; and many of the Noisette and other roses are very desirable in softer climates; but for the North, and for those who want vines that will generally take care of themselves, our catalogue could not well be much enlarged. The plants we have mentioned are beautiful and varied enough to invest our northern homes with great attractions.

PRESERVATION OF GRAPES FRESH.

For a long time it was a cause of lamentation among fruit-growers and housekeepers, that the abundant and delicious fruits of Summer and Autumn could be enjoyed only for a very short period. But ingenuity at length contrived, and nearly perpetuated, a plan by which most of these fruits might be kept in their original state for a great length of time. Strawberries, cherries, raspberries, peaches, tomatoes, pears and the like, are now preserved annually in large quantities, in sealed jars and cans, in as fine a state almost, as when first gathered. Grapes, we presume, might be kept in the same way; but it would be somewhat expensive to provide jars enough for the product of a single thrifty vine. Several other methods have been tried, with more or less success; but, so far as we can learn, a perfectly satisfactory mode has not yet been hit upon. It is in the hope of helping forward to such a result, that we now write. The subject is one about which the fruit-raising and the fruit-eating public have much to learn.

In the preservation of fruit, certain general principles must be taken into account. It is the natural tendency of all fruit to commence the process of decay soon after it has arrived at full maturity. With some, this deterioration is much more rapid than with others. Decomposition is hastened by the action of frost, heat, light, moisture, by sudden changes from heat to cold, by bruises, and by currents of air. Of course, then, to retard that decomposition, we must withdraw, as far as possible, these causes of decay.

Of the methods adopted to preserve grapes, in accordance with these principles, we record the following:

1. The grapes are suffered to become just fairly ripe, and no more, before gathering. They are *cut*, not *pulled*, from the vines, in the middle of a dry, windy day, from about 11 o'clock in the forenoon to 3 P. M. They are carried in shallow baskets, and spread upon sheets on the floor of a cool, north chamber. The first leisure day is then taken for packing. First, however, all mildewed, rotton or unripe grapes must be carefully culled out and thrown away. The clusters may then be taken to an ice-house and laid in single layers, on shelves made of thin, narrow strips of pine, like slender lattices. Here they will not freeze, but will be

kept in so low and even a temperature that they will remain perfectly fresh until Christmas.

2. Another method is, after gathering them in the careful manner above noted, to cover the cut ends of the stems with sealing wax, and then pack the clusters in cotton wadding. They say *wadding* instead of *batting*, because the glazed surface of the former prevents the fibres of the cotton from adhering to the stems. To be more particular, the process is as follows: Procure small boxes, about the size of candle-boxes, (but do not get candle-boxes, unless you wish your grapes flavored with the extract of candle,) see to it that they are dry and sweet, cover the bottom with a double thickness of wadding, and put in a layer of grapes. To prevent the clusters from pressing on each other, lay a small roll of cotton between each of them. Next, add a layer of wadding, and then one of grapes, as first directed, and so on, alternately, until the box is filled, covering the whole with cotton, and nailing down the lid. The box should then be set away in a dry, cool place, and kept as cool as possible without freezing. We have practiced this method for several years, with considerable success. A portion of our grapes mold, and others shrink, but out of several boxes we contrive to get very eatable desserts until after New Year's, and later.

This method is varied by some, thus: They use for packing, soft paper shavings, the trimmings found at all book-binders' establishments, in place of cotton. Dried maple leaves are a favorite packing material with others. Sand, washed clean of all vegetable matter, and thoroughly dried, has been successfully used. Certainly, it can impart no flavor to the fruit, and it envelopes the berries so perfectly that the air cannot penetrate to injure them. Some of our neighbors have used hemlock sawdust, thoroughly dried; but they report many of their grapes moldy, and the rest too highly seasoned with hemlock. We do not see why dry bran or oats would not answer a good purpose. A writer, in an early volume of the *Horticulturist*, recommends ash saw-dust, as the very best article for preserving grapes. He bakes it, then sifts it to get out the fine powder, which would otherwise adhere to the grapes. He packs in boxes holding about a peck each, with a layer of saw-dust an inch thick between each layer of grapes. They are stowed away in the garret of his wood-shed until Winter sets in; then they are moved to his cellar. In this way he keeps them fresh until March.

With the above suggestions and facts, we leave this subject for the present, hoping that between this and the time for packing grapes, some of our readers will send us in contributions on this important topic.

Gibbon truly said that the best and most important part of every man's education is that which he gives himself.

In the mouths of many men, soft words are like roses that soldiers put into the muzzles of their muskets on a holiday.

GRAPE CULTURE—NO. VIII.

BY WILLIAM CHORLTON.

OUT-DOOR CULTURE.

Those cultivators who have taken our advice with regard to early removal of superfluous shoots, and shortening in of the fruit branches, will now see the advantage in the promising fruit, and the thick solid texture of the leaves. Instead of leaves hidden from the light, and sun, by the too common overcrowded growth, they are elaborating and concentrating the crude juices from the roots, and carbonizing the previous fluid material; thus forming sugar and aromatic flavor in the berries, and solid buds and woody fibre for next year's development. It is true that our native varieties are usually of more rampant habit when in the open air than most of the exotics, but the rule holds good, nevertheless, and is only subject to a modification in practice. Instead of allowing the plant to extend over a great surface, and perhaps elongate its branches until they would overtop the loftiest trees, and push beyond into the light, where the centralizing action goes on, more beneficial results are accomplished within required limits, and a greater amount of fruit, of even better quality, obtained from a smaller superficial area. Were this more generally attended to, we should not hear of so many instances of decay and falling off of the fruit, or so much respecting the deficiency in ripening.

Continue to keep the ground free from weeds, and when the hoe only is used, let the ground be deeply and well stirred.

Notwithstanding all the care that can be taken there may occasionally be some diseased berries, and now is the time to remove such by cutting them out with the scissors. A little care bestowed in this way will more than repay the labor. It can be done with little expense, even though it be over a large vineyard.

COLD GRAPERY.

During the early part of the month be on the look-out for mildew, more particularly in damp or foggy weather. The sporules are now in the greatest abundance, and will most readily germinate under favorable circumstances. Counteract the liability to this fungus by a dry atmosphere, impregnated with the fumes of sulphur under slow combustion, which the warm air inside the house will afford during a fine day. When the grapes begin to color, or soften to the touch, there is very little further danger from this pest, but water should be discontinued overhead, and a gradually dryer air maintained in the house. It is possible to have ripe fruit in the cold grapery on the first of the month from the earliest varieties, but this is not usually accomplished until the middle or latter part of the month. As the ripening progresses omit the use of water entirely, and give more air, gradually opening the lower ventilators if the weather is favorable. The object now is to ensure a continued steady action in the circulating medium, and prevent sudden checks, which would arrest the chemical changes going on at this critical period, and injure both the coloring property and the flavor of the berries. When the fruit is nearly ripe the upper ventilators may be left open at all times, but it is well to close the lower ones at night to keep out mice and currents of damp air.

FORCING HOUSE.

In this house as much air should be admitted as possible. All the doors and movable windows may be constantly open, excepting during windy or stormy weather, and then they ought to be only so far closed as to ensure safety to the house. Were it not that our glass roofs are somewhat permanently fixed, it would be better when the grapes are all cut, to take off the glasses and leave the vines entirely exposed, as the rains would wash out many insects, and the birds assist in destroying the remainder, which would, in many instances, save much labor in artificial cleaning without injury to the vines, as the wood is now, or ought to be, pretty well ripened. It seems to be still a disputed point, with many, whether the cultivation of exotic grapes, grown in glass houses, will pay as a commercial product, when the expense and required care are taken into consideration. Now I wish to record only what is strictly reliable, and the result of long experience and actual calculations, with no motive to mislead or to hold out encouragement that may not be realized. Conclusions should not be drawn from individual extremes of success, but taking the account below there is enough margin left, after full allowance for reasonable mischances, to show that a large per centage of profit ought to be made. In proof of this, I append the amount of produce and wholesale market price of the grapes from a house planted by the writer in 1853. It is possible that some persons will not obtain the same results, as successful practice can best be obtained by long experience. There is nothing extraordinary in the vines here spoken of, or beyond the permanent capabilities of others in well-managed houses.

The house was planted with 52 one-year-old vines during the Spring of 1853.

June 21, 1854, commenced to cut the first of a crop consisting of	252 bunches.
June 15, 1855, commenced the first of a crop of	396 bunches.
June 10, 1856, commenced the first of a crop of	706 bunches.
June 7, 1857, commenced the first of a crop of	666 bunches.
Total	2,020 bunches.

These grapes, taken together, would average 1¼ pounds to the bunch, which gives 2,525 pounds. The retail selling price, at the time they might have been taken to market, would be about $2 per pound, consequently it is certain that $1 could have been obtained for them at wholesale. Now the expenses for fuel and care, reckoning the labor at $2 per day, have been, during the whole time, as follows:

Care and labor 1st year	$50	
Care and labor 2d year	100	
Care and labor 3d year	200	
Care and labor 4th year	200—	$350
Fuel 1st year	$40	
Fuel 2d year	60	
Fuel 3d year	90	
Fuel 4th year	100—	$290
Total expense		$640
Which taken from		$2,525
The value of the crop for the four bearing years, leaves a surplus of		$1,685

The original cost of this house was about $1,200, to which we may add some $500 for manure, vines, and other requirements, and still the results show, after making allowances for all contingencies, that the whole has cleared the first cost and subsequent expenses, leaving us in possession of a house with the vines included, in full bearing for future profits. In this case expense was no object, and the best method of heating was adopted. A less costly structure, but still quite as effectual, would answer every purpose, showing still further that there is money to be made out of grape forcing. We will speak in like manner of growing without artificial heat in a future number.

RETARDING HOUSE.

The operations of last month in the cold grapery will now apply here, with the exception of maintaining a temperature some 5° lower than there recommended, and using a comparatively less quantity of water. Unless the weather proves very dry, it is best not to use any water at all inside the house, more particularly if mildew makes its appearance.

GRAPES—RAISING FRUIT VS. HUNTING IT.

A BOY'S LETTER.

[The following letter is from a boy subscriber who is a very enthusiastic cultivator, though yet lacking a good many years of being "out of his teens," we believe. We think he is bound to succeed. At his request, we omit his name and residence, which we have.—ED.]

To the Editor of the American Agriculturist.

Many boys and girls, strange as it may appear, seem to prefer to go wandering through the fields in search of strawberries, and picking their way through muddy swamps, in search of grapes (the first of which, when gathered, are small, sour, and hardly fit to it; and the latter much like leaden bullets), than to raise them, and have large and beautiful fruit. And what is the reason of this? It is because the former method is falsely called *fun*, and the latter *work*. The time spent in searching after fruit would nearly or quite be sufficient to raise much more, and of a better quality.

The grape will repay culture better, or at least as well as any other fruit now grown. Such, at any rate, seems to be the general opinion, if we may judge from the great outlays of money now made, in order that it may be cultivated thoroughly, and to have it at all seasons of the year.

But a great outlay is not always necessary, in order that we may have and enjoy this fruit. The most heavy and laborious work in the cultivation of the vine, is preparing the ground, and this is one of the most important things to be done.

In the first place, the ground intended for the grape border should be measured and marked out. Let it be from four to six feet wide—six is the best—and as long as you wish. Then throw out the black soil on one side, and the yellow soil with the clay or gravel on the other. The deeper it is dug the better, but not less than two feet. Ours is from three to three and a half. This you will find to be the most laborious part of the work, and will require some patience and perseverance. After this was done, we carted small stones into it, having them piled regularly from a foot to fourteen inches high. This you will readily perceive is done for the purpose of draining the border, without which the grape does not succeed nearly as well.

After this is done, add about two or three inches of good soil; then some manure, and continue to fill it up, adding a good quantity of manure, shells, bones, and almost any thing that serves to enrich the soil, and does not injure the vines. Some put in strips and bits of leather, and old woollen rags. Dead cats and dogs are not considered to be beneficial. Do not put in any of the gravel or clay, but supply its place with good soil. After all this is done, then set out the vines nicely and well. If you will sink boards along the edges of the border, it will give the whole a neat appearance, and confine the soil. The ground must then be kept free from weeds, or mulched. If you mulch your border, let the covering be about four inches deep. Mulch is generally considered to be good for grape vines.

For instructions as to the after culture of the grape, I refer you to other persons more experienced in raising the grape than I am. Be assured your parents will be much better pleased to have you spend your time in this manner than in searching after bad fruit.

Your young friend, GEORGE.

UP IN CONNECTICUT, July 13, 1857.

The ardent reformer moves the multitude, but the calm philosopher moves the ardent reformer.

STRAWBERRIES.

CHAPTER VII.

This has not been a favorable season for Strawberries, except in light soil. On rich and heavy soils the abundance of rain has induced too vigorous growth of leaf. We have noticed some new varieties of much promise, but it will require another season to test them fully; we want a few varieties of perfect plants, that is, plants perfect in both sexual organs, of great *constitutional vigor*; plants that may be cultivated separately, and at such distances that they can be kept clean with a hoe in the same manner as cabbage plants. A friend has been raising plants from seed for several years, with a view to obtain, if possible, varieties of greater vigor than any that have been hitherto produced. He has obtained two varieties which promise well in this respect. The plants are now two feet in diameter, and still growing most luxuriantly; they both fruited this summer, the berries were very large and good. Another year will fully test their merits, but they will not be offered to the public without having first received the unqualified approbation of disinterested and well qualified judges. For the present we cannot recommend any kinds more highly than Longworth's Prolific and Hovey's Seedling for a main crop.

August and September are suitable months for setting out new beds, and if the plants are properly cared for, they will produce some fine fruit next summer; success will depend almost wholly on the proper management of the plants. Let the ground be well enriched with thoroughly decomposed stable manure; if trenched eighteen inches or two feet deep so much the better. Select the finest young plants, and remove them with as many of the roots as possible. Be careful to protect the roots from injury before planting. The best way to do this is to cover them immediately with some earth. The best time to plant is immediately after a rain, and during cloudy weather, or in the evening. We prefer planting in drills, two feet apart. At this season, the plants may be set much closer in the row than in the Spring, as they will not become very large before Winter. Put them about nine inches apart; then, after they have fruited next Summer, one-half of the plants may be removed. We keep our beds clean by passing a rake between the rows, at short intervals of time. This keeps the ground mellow, and promotes the growth of the plants. The most effectual mode of keeping the young transplanted vines from being injured by the sun, is to scatter some new mown grass over the bed. This will not only protect the plants from the scorching influence of the sun, but will also prevent the too sudden evaporation of the water applied to them at the time of planting.

It has been recommended of late to raise strawberries upon poor sandy land, without any manure. Now, this we deem to be sheer nonsense. We have never been able to raise fine strawberries without a liberal supply of manure, and this is the general experience.

THE GENERAL AIMS OF GARDENING IN AUGUST Are to prevent weeds from going to seed, to remove and secure crops that are ripe, to keep up a succession of vegetables and fruits for Fall and Winter use, to water copiously whatever the usual drouth makes it needful to water, to save all ripe seeds for sowing or planting, to complete the preparation of composts, and to trench, if the ground is not too dry, new squares for the enlargement of the next year's work. These, with the most careful attention to crops still growing, will make August by no means an idle month, even in the garden.

CELERY.

It is not too late to plant out a good supply of this for fall and winter use. Plants from seed sown in March and April were doubtless set in trenches in June and July, and now require earthing up for early use. Celery sown in May attains a suitable size for planting out during the latter part of July or first of August. It is better to prepare the trenches a little in advance, but if this was not done last month there should be no delay now, as the plants require putting in at once.

Lay off the rows a foot wide and three feet apart, dig one spade deep in the row, placing the earth upon each side of the trenches. Spread four to six inches of well rotted manure in the trenches, and work it in thoroughly by spading a little deeper and paring the edges. Some of the loose earth thrown out may be returned so that the surface to plant upon shall be four to six inches below the original level.

Before removing the plants let the seed bed be thoroughly watered, which will cause the earth to adhere to the rootlets and render transplanting safer. After lifting the plants carefully, clip the tap root to induce side branches, shorten the straggling leaves, and remove side suckers. Set them in single rows along the center of the trench, five or six inches apart, and give a good watering to settle the earth about the roots. Shade for a few days by laying sticks across the trenches and covering with boards or brush, removing it as soon as they commence an active growth. The after treatment will consist in keeping the ground well stirred and free from weeds, with an occasional watering during dry weather, until they are ready to receive the final blanching operation. From the middle of September to the first of October will be the proper time to commence earthing up. Break the ground about the plants with a spade, and carefully gathering the stalks in the hand, draw the fine earth around them, without allowing the dirt to fall into the center or heart of the plant. This earthing up should always be done during dry weather, and the planting should never be upon naturally wet soil. Repeat this hilling at intervals of ten to fifteen days until the stalks are blanched sufficiently high. Previous to the latter earthings it is better to gather the leaves carefully in the hand and tie them up with bass, or soft strings, taking care not to bruise the stalks. Carefully avoid covering the crown of the plant which would induce decay.

WINTER ONIONS AND LETTUCE.

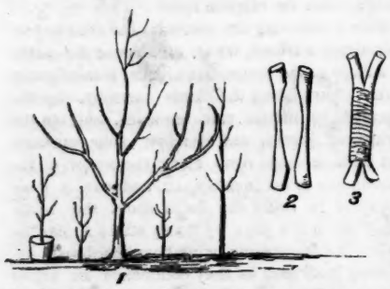
You like onions, either as salad or otherwise? Would you like to have them fresh very early in the Spring, before they could grow after Spring planting? "Of course I would." Very well, then perhaps we can help you to them. Select a good spot of ground, prepare it well, and make one bed of onions about the 10th of August. Make another about the 1st of September. Sow the seed quite thick. Let them grow till Winter, keeping the beds free from weeds, and thinning them out a very little. When Winter comes, cover them over with a good coat of coarse litter. Further south, the covering may be lighter. You may thus have the onions for use in March or April next year. They will be excellent then, if you like onions.

Sow a bed of lettuce in the same way, at the same time or later, and protect it in the same manner, and you may have that luxury also very early in the Spring. Try both of these operations and you will probably thank us next Spring for these hints.

INARCHING—OR GRAFTING BY APPROACH.

"What is 'Inarching'?" asks an enquirer, and the question is well put, as comparatively few understand the process. In short, it is uniting a branch of one tree, shrub, or plant to the limb or stock of another, so that the two will grow firmly together, after which the united limb may be cut off from the parent stock, and left to grow upon the new tree to which it has been attached. By this process we may often unite a scion to a tree more readily and more successfully than in the ordinary processes of grafting or budding. Let us explain by an illustration:

Take for example a Magnolia *conspicua*, a fine low branching specimen growing in the open ground. Plant in a circle around this another variety, say Magnolia *glauca* or *acuminata*, setting the latter so that the branches of the central tree can be brought in contact with the bodies of the trees in the circle as seen in fig. 1.



It is better to set out these trees at least one year before the grafting is attempted, and then it is probable that only a portion of them will be in condition and position the first year to receive a *head* from the parent or central tree.

Select a branch of the specimen tree which can be brought into contact with the body of one of the circular plants, and with a sharp knife pare away one side of each for about two inches in length, as seen in fig. 2. Let the scion and stock be as nearly of the same size as possible, and of straight smooth growth. The engraver has represented the limb to be larger than the stock to which it is to be attached. If there be any variation, let the stock be the largest. Let them be pared alike and bring them together so that the bark shall exactly meet on one if not on both edges of the pared portions. Then bind them firmly, as seen in fig. 3 Soft bass, or strips of muslin coated with grafting cement may be used for the bandage. If *strings* of any kind are employed, it is better to cover the whole with grafting clay, or wax, to exclude the sun. The coated cloth is preferable, but it must be firm, or an outer string be used to prevent the wind from parting them. A union is rendered more certain by making a slit in each as in tongue-grafting, passing the knife upward in the scion or branch, and downward in the stock, and then pressing them closely together. This, however, is not essential except in those varieties which are difficult to unite. If much exposed, confine the branches by tying to stakes, or to limbs of the parent tree, to prevent swaying by the wind.

We prefer leaving them in this condition till the following season, except in some rapid growing varieties which have evidently united in a short time. These may have the *top* of the small tree or stock cut off, just above the point of union, in three weeks from the time of inarching; but ordinarily they may remain till the next spring, when both the *top* of the one and the *bottom* of the other are cut away, removing the scion from its parent immediately *below* the place of contact. We now have a top from the choice variety upon a trunk of a more common sort. The body below the graft should be kept free from leaves or branches, and in a few years new wood will hide all appearance of the wound.

Where the branches of the tree intended to be propagated from are at a distance from the ground, a temporary stage may be erected, and the stocks, planted in pots, be placed upon boards at convenient places to receive the new top.

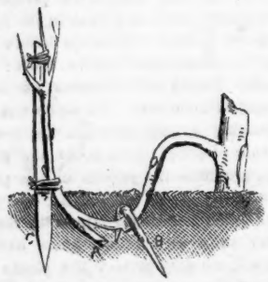
Potted plants in the forcing or green-house are conveniently inarched by placing them side by side upon the shelf, turning them so as to bring suitable branches in contact, which are united in the above manner.

Inarching may be done from May to the end of August, though we prefer June and July, if the trees are in vigorous growth.

WHAT IS LAYERING?

There is a large class of trees, shrubs and vines, which do not grow readily by cuttings, and which are with difficulty obtained from seed. Others take root ("strike") more easily, and appear to thrive tolerably well during the moist weather of Spring, but when the drouth of midsummer comes on, having very little root of their own, and no parent stock to draw upon, they dry out.

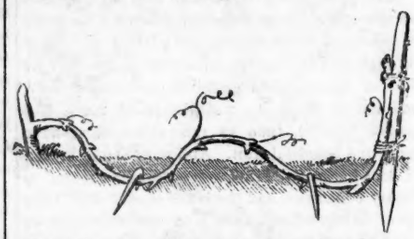
To propagate such plants, a very simple, easily performed, and successful mode of application is adopted, called "layering." This consists in bending down vines, or branches of shrubs, and bedding them in the earth at one or more points, without previously cutting from the parent root. At the joints or buds, and even elsewhere, the stems thus covered send out roots, and after a time these become so strong that the layered branch or vine can be cut off to grow upon its own new roots. To facilitate the striking out of new roots, it is customary to wound the layered stem by partially cutting it at the point where roots are desired. We introduce an illustration of simple Layering.



A. Cut or slit to promote striking. *B*. Crotched stick to hold down the vine. *C*. Stake to turn new shoot upward.

Grape-vines, Gooseberries, Roses, Honeysuckles, and numerous flowering shrubs may be layered (or laid in) during the early part of this month, (August), and they will root so that they may be removed in the Fall or coming Spring. The principal layering is usually performed in early Spring, or in Autumn, on wood of the previous season's growth.

The Nursery Gardener frequently sets out plants which he wishes to propagate in this way, four to six feet apart, and heads them down. They then throw out several side shoots, which may be layered the following Spring. These stocks are now called *stools*, and are kept for the sole purpose of furnishing layers, the new growth of each season being laid down in the Fall or following Spring. The ground around them must be kept deeply stirred, and if mulched to retain the moisture, so much the better. Some varieties of evergreens, and a few deciduous trees, require two or three years to establish themselves sufficiently upon the new roots, but by far the largest class will require only one season. Branches which cannot be brought to the ground are sometimes layered by placing pots or boxes of earth upon shelves, and having adjusted the branch selected, keep the earth in the pot or box moist by frequent waterings.



In explanation of the process, we introduce a section of a grape-vine containing a shoot of last year's growth. Having loosened or spaded the ground, remove from five to six inches of earth, and lay the shoot in this trench, pinning it down with a hooked stick, as represented in the figure Replace the earth, leaving one or two feet of the extremity out of ground. If the shoot is sufficiently long, a second portion may in like manner be layered, as seen above. To facilitate the pushing out of fibres, make an upward cut or slit in the branch, immediately beneath a bud, and near the point at which it is pegged down. A twist with the hand, or a split with an awl or knife, answers a like purpose. In most cases, the branch may be cut from its parent in the following Fall or Spring, and planted out upon its new root. A stiff branch may sometimes require splitting with a knife before it can be brought to the ground, and will need a strong peg to hold it there. Stiff woody shrubs or trees will require bending up and staking to form an upright trunk, as shown above. A slight curve near the ground can be hidden by planting a little deeper after removal.

CURRANTS AS A MARKET CROP.

That there are superior currants to those ordinarily grown, we know from every day's observation. We should be glad to *show* all our readers the fruit now ripening upon the tree described and illustrated on page 112 of this volume (May number). We have just been shown a single branch or limb of the Cherry Currant, raised by Messrs. Wells & Provost, at Yonkers, N. Y. This branch is about 15 inches in length, and half an inch in diameter, and yet contains fully three-fourths of a pound of berries, the smallest of which are 1¼ inches in circumference, and the largest over 1¾ inches. These cultivators are putting out thirty acres of this variety, to raise fruit for preserving. We have also before us splendid bunches of the Cherry Currant, grown by C. F. Erhard, of Ravenswood, L. I., who is raising a large stock of the plants for market. The berries before us are 1½ to 1¾ inches in circumference. Another gentleman, whose name and residence we did not learn, recently brought into our office specimen berries still larger than either of the above.

These, and many other specimens we have seen, give abundant evidence that there is sufficient opportunity to improve upon the old stereotyped small varieties, hitherto the standard crop. We are testing several varieties of the newer sorts, and shall be able to report by another season. So far, we incline to place the genuine Cherry Currant ahead of all others. There are

some sold as such, which are not the genuine.

Common small currants now sell readily in this market for 5 to 6 cents per pound, and the best large improved varieties bring 10 to 12 cents.

Let us look a moment at the profit of raising currants at present market rates. Planted in rows four to five feet apart, they can be plowed and hoed between with ease. At four feet apart, 2,722 bushes will occupy an acre. At a very moderate estimate, each plant will yield five pounds. These, at only five cents per pound (less than half the present price), will give $685, 50 as the product of an acre. This certainly shows a fair chance for profit on this crop. Usually the yield will be much larger than we have given above, on plants three years old and upward, and the price of the improved varieties we have named, will seldom, if ever, be so low as five cents. We refer to page 112, this volume for directions as to culture, pruning, &c.

WHAT OF THE OSAGE ORANGE?

In response to inquiries, we promised in our June number to give special attention to this plant during our Western travels. We have done so, and after seeing the plant in almost every stage of growth, in a variety of situations, climate, &c., in seven or eight different States, and after conversing with a great number who *have* tried it, or are now doing so, we confess to being more unsettled than ever in regard to the general adaptability of the Osage Orange for hedging. In short, we have not yet that faith in it which would lead us to be at the expense of planting out five hundred rods of it, in any place or under any circumstances where there was any other resort whatever for fencing. We expect this statement will call forth strong protests, for we have visited a few localities where the plant now promises to succeed, and we doubt not it will sometimes be successful, but we certainly speak within due limits, when we say that *so far* the failures have far exceeded the cases of success. It would greatly exceed our limits to note particularly the several examinations we have made, and we can only speak in general terms.

Out of 47 hedges we examined, 23 were badly injured by frost, either last winter or the winter before; 7 were considerably injured, and 4 slightly so. Of the 13 apparently uninjured, 7 were sheltered by hill sides, groves, or by snow banks produced by adjacent fences. We heard of several others uninjured, but did not see them.

We met but three persons who had tried them, and who were not interested in the sale of plants or to sustain a reputation for past statements, who were ready to give them their present hearty endorsement. A gentleman in the Great Miami Valley, (Western Ohio,) showed us a very good hedge *on the east side of a hill and sheltered by it.* He seemed to have confidence in the plant, and stated that a number of farmers in the vicinity were putting out new plots.

Another in Western New-York, has a young hedge which has escaped freezing, and he is confident that the plant will flourish there. Another in Central Illinois, has a hedge now three years old from the setting which though a little nipped by frost is sending out new shoots, and the owner is so confident of success that he is preparing to plant out two miles.

A large land-holder, nearKnoxville, Ill., informed us that he had intended to plant several miles, but since the results of last winter's frosts have been developed, he has given up all idea of trying this hedge plant, and he is now looking around for a substitute.

An intelligent farmer in Kendall County Ill., who has been watching this plant since its first introduction, and who has made long journeys of observation to settle the question for himself, said to us: "I have come to the conclusion that the Osage Orange will answer for a hedge, so long as you have a good rail fence on one side and a board fence on the other." Others, in Ohio, Indiana and Illinois, expressed similar opinions. Many think there is no doubt but a good hedge may be produced with the Osage Orange *if it is carefully attended to for a few years.* But here is one great difficulty.

The experiment of planting a hundred miles along the Illinois Central Railroad, heralded so loudly some two years since, was commenced, but is given up entirely we believe, and the portion planted is proving a failure, "for want of care," it is said.

We have thus expressed our present opinion of this plant, with a very few of the practical reasons therefor. Just such a hedging plant as the Osage Orange has been represented to be, is greatly needed; and so great is the want that we will still cling to the hope that in many localities it will flourish. The almost constant care required will in any case be an objection, but not a fatal one we trust, over millions of acres almost or quite devoid of fencing materials.

We shall be glad to hear from our readers of this topic. We want facts however—not opinions, unless such opinions are exceedingly well fortified by facts. Let us endeavor to ascertain under precisely what circumstances of soil, latitude, climate, exposure or protection, the Osage Orange *will* grow, or rather *has* grown to sufficient hight and thickness to form a safe and reliable hedge. Let us know what expense, including outlays of *time* as well as money, is required to bring the hedge to a useful condition, and also how much care is annually needed thereafter.

In the meantime, while we cannot at present advise any one to enter largely into the use of this plant, we think it desirable that experiments should be continued. Half a dozen years or less will settle the question. Almost any one can readily put out a border of ten, twenty or thirty rods in length, and himself test its adaptedness to his circumstances and locality. This might be done in different places, by Farmers' Clubs or Associations. Such experiments would be of even more interest and value to a community, than the best conducted exhibitions, though neither should be neglected.

P. S. Since the above was put in type, we have been looking over some hundreds of letters, accumulated during our absence, and in these we find several quite favorable allusions to the Osage Orange, with a few not so favorable. We shall examine these more carefully hereafter.

ECONOMY IN KILLING WEEDS.

Mr. Slapdash hoes his garden in a great hurry, and grudges every hour he spends among the onions, beets and strawberries. Corn and potatoes are his favorite plants. The garden he overlooks, and when the cultivation is attempted, it is but half done. The soil is not stirred close up to the plants, and the germinating seeds will be above ground in two days, all along the neglected strip next to the drill. Even the weeds hoed up, especially the purslane, will be well rooted again in a week, and his garden will sadly need hoeing again.

Farmer Steady knows a thing or two about the garden, that it pays better than any part of the farm, and that thoroughness in weeding saves time. He takes a basket along when he weeds the beds and drills, and every handful is carefully gathered up. He believes in hoeing often, but does not want the weeds to obstruct the hoe. He knows that he can stir the soil in half the time, where it is clear of weeds. He has use for the weeds too, and thinks it would almost pay to devote a plot of ground to them, if they did not grow so freely among the vegetables. Of course, the pigs have their share, and thrive as well upon them as if they were "pigs in clover." But the biddies also have a large allowance. They are not suffered to run at large, and destroy everything in the garden. In the yards, they need green food, as much as pigs and neat stock The eggs they lay is a caution to the whole Slapdash family to save their weeds, and thus get cheap eggs and pork, while they save labor in cultivating the garden.

ABOUT PRESERVES AND PRESERVING.

In this age of "fast living," among the few things to be reckoned as improvements upon the "good old ways," we think not the least important is the growing tendency to discard the use of the old fashioned "Preserves." The method of adding to a lot of fruit an equal weight of sugar, and then boiling it down by the hour, until all the natural aroma of the fruit is destroyed, and a concentrated mass of indigestible "sweet meats" is produced, we have long esteemed not only as a foolish practice, but one directly conducive to ill health. The smallest quantity of these articles taken into the stomach is so much poison, since it enters at once into the acid fermentation, and produces disarrangement of the digestive organs, though persons in robust health have for a time managed to live along in spite of this tax upon their systems. With this view of the subject, we can but hail as a decided boon, the recently introduced processes of conserving fruits and vegetables in a condition nearly as they are prepared for food by nature.

We have frequently referred to the "Air-tight" or "Self-sealing" Cans and Jars, and after the experience of another year, we are prepared to recommend their use still more strongly than ever. To-day, (July 25th,) we opened a can of tomatoes, and we found them just as nice and fresh as when they were picked from the vines last year, and all the Spring and Summer thus far we have had peaches, cherries, strawberries, raspberries, and other small fruits in a well kept, fresh condition, not "steeped in sugar," or boiled to a jelly, but the simple fruits themselves, possessing the delicious taste and aroma of those just gathered and cooked. These have been kept equally well in tin cans manufactured by Taylor & Hodgetts, (now E. Ketcham & Co.,) by Wells & Provost, and by Arthur & Co. Tomatoes have also kept just as well in the earthen jars described on page 255 of our last volume, (Aug. 1856). We did not try the jars for other fruits than tomatoes, but shall do so this season, under the belief that they will answer nearly as well as the tin cans.

EARTHEN JARS.

These are of the common stone ware, those being selected which have the "glazing" perfect, without and within, and having closely fitting covers. The two-quart size is most convenient, and the higher and narrower the jars the better. Ours are 8 to 9 inches high, and 4½ to 6 inches outside diameter. The neck is drawn in an inch below the top, and then flares outward, so that the cover fits closely down *into* the neck, leaving a vacant space of half an inch above it.

The tomatoes kept in these were picked when just fully ripe, before any decay had commenced, and dropped into hot water a moment, to facili-

tate removing the cuticle or thin skin. They were next salted and boiled, just as if for immediate use, no water being added to cook them in, and then put into the jars, previously *well scalded*, the jars made just full, and *the lids put in loosely*. They were then set into kettles of *cold* water, to avoid breaking them, the water around them being nearly up to the neck on the outside. The water was then made hot, and kept so twenty minutes, or long enough to raise the fruit within the jars to the boiling point, and thus expel any enclosed air. The lid was taken up for a minute, near the close, to allow a free escape of air and steam, and then placed back closely down upon the fruit, adding some more cooked fruit when necessary to make the jar just full and leave no air under the cover. Before placing the cover down the last time, it should be wiped clean, and also wipe the jar above the fruit. A circular piece of Canton (cotton) flannel, a little larger than the lid, should be put under it. The jars were then removed from the water, and melted bees-wax poured in upon the cover. While the wax was still hot, the projecting edge of the flannel was carefully pressed down into any place where the cover did not chance to fit tightly, and wax enough then added to make a perfectly tight joint. After the jars were wiped dry, they were examined carefully, and a little wax put upon any imperfect places, on the outside. Where they are designed to be kept for a year or two, we recommend rubbing all over their bottom, as well as sides, while still warm, a cloth dipped in melted wax, or a cake of wax will do. This will render them perfectly *air-tight*.

Good two-quart jars can be everywhere obtained for 12 to 20 cents each. The process described above is not difficult nor troublesome, and we think the jars will answer just as well for other fruits as for tomatoes. For currants and other acid (sour) fruits, they are better than any kind of metallic cans. They are not, however, as *convenient* as the tin cans, and where the latter are easily obtainable, they are to be preferred for sweet fruits, such as peaches, pears, sweet cherries, berries, &c.

TIN CANS FOR PRESERVING.

The original form of these is, an air-tight tin canister, with a circular opening in the top, large enough to put in the fruit, and a small tin cover to fit over this, with a pin-hole in the centre. The fruit is then put in, and the cover soldered on. The can is next set into boiling water, and heated until all air is expelled through the pin-hole, and steam issues rapidly, when the can is lifted out, and a drop of solder put upon the pin-hole. As comparatively few persons can use the soldering-iron well, this kind of can is not adapted to general use. They are not easily opened, and are seldom good for a second year, at least, without the aid of a tinner. Except in large fruit-preserving establishments, and even in many of these, they are now superceded by what are called

"SELF-SEALING CANS."

These are prepared with a wide metallic neck, and screw cover, as in Ketcham & Co.'s (Taylor & Hodget's), Wells & Provost's (Sprott's), and others; or, like Arthur & Co.'s, they have a cup-like flange around the top, to be filled with wax or cement, into which is set the edge of the cover. Any of these cans answer a good purpose. We have used all of them, and found little difference, though our principal experience has been with the two first named. The particulars as to cost, &c., can be learned in our advertising columns. They can be used for several years, if well taken care of.

As full directions for using these cans are always furnished to purchasers, we will not take up space for more than a general remark or two.

In no case trust alone to the screw cover and India rubber under it to secure perfect exclusion of air. Bees-wax is cheap, and a little of this, melted and put upon every point where air may get in, will give double protection. Glass bottles may be filled with fruit, and stopped with a cork dipped in melted bees-wax, and then, by adding a coat of melted wax over and around the top, no air will enter. We have a glass flask in our office, freed from air, and stopped in the above manner with cork and wax, 4½ years since, and the air has not yet entered it, as is shown by the heavy lead-like fall of a quantity of water enclosed.

Always take fruit just at the point of ripening, and use it as soon as possible after picking, rejecting any specimens that have been at all bruised.

Small Type.—The remaining pages are not set in smaller type because less important than the preceding, but to make room for *more* matter in the same space.

FOR THE BOYS AND GIRLS.

Well, well, Boys and Girls! We came home from "out West" just in time to put this paper to "press" at a late date, and we found a whole hat-full, yes, two hat-fulls of Boys' and Girls' letters, giving answers to the problems in our July number, and on other matters. Some of them contain very pretty drawings. We took the first opportunity to look them over, but after spending several hours, assisted by the Editress, in trying to sort them out, and get some of them ready for the engraver, we gave up in despair of doing it now. So we are compelled to ask you to wait until our next number, when we will give you extra space. For the benefit of our Pennsylvanian Boy and Girl readers, and a good many new ones elsewhere, we will repeat the problems to be answered next month.

PROBLEM 3.—How can 10 trees be planted so that there shall be 5 rows and 4 trees in each row?

PROBLEM 4.—How can 12 trees be planted so as to have 6 rows and 4 trees in each row?

PROBLEM 5.—How can 19 trees be planted so as to have 9 rows and yet 5 trees in each row?

PROBLEM 6.—How can 27 trees be planted so as to have 9 rows and 6 trees in each row?

NOTES UPON VALUABLE BOOKS.

[*Purchasing Books.*—Book selling is no part of our business, and we would prefer to have all our readers get such works as they desire directly from the publishers, or from a regular book-seller. But many are remote from book stores, and are cautious about sending money to unknown publishers. To accommodate such, we will at any time be happy to procure any desired book, especially on any subject treated of in the *Agriculturist*. As a general thing we can send any book by mail *post-paid* on receipt of the regular retail price—the discount allowed us by publishers being just about enough to cover the cost of mailing.]

A Farmer's Library.

A number of persons, each enquire for a list of good books, such as would make up a fair library for a farmer. We will name off-hand, a few of those which we consider among the best, giving the publisher's price for each. We could add considerably to the list, though in this department of literature, as in every other, not a fourth of the works published are worth binding: American Farm Book, by R. L. Allen, $1; Nash's Progressive Farmer, 60 cents; Norton's Scientific and Practical Agriculture, 60 cents; Munn's Land Drainer, 50 cents; The Stable Book, $1; Allen on Diseases of Domestic Animals, 75 cts; Dadd's Cattle and Dadd's Horse Doctor, each $1; Bement's New Poultry Book, $1 25; Quinby's Mysteries of Bee Keeping Explained, $1; Langstroth's Hive and Honey Bee, new Edition, $1 50; Allen's Rural Architecture, $1 25; Buist's Family Kitchen Gardener, 75 cts.; Breck's Flower Garden, $1; Chorlton's Grape Grower's Guide, 60 cents; Pardee's Strawberry Manual, 60 cents; Eastwood's Cranberry Manual, 50 cents.

ON FRUITS.—Downing's Fruits and Fruit Trees of America, $1 50; Barry's Fruit Garden $1 25; Cole's American Fruit Book, 50 cents; Elliott's Fruit Growers Guide, $1 25.

The above can be had of most Booksellers, at the prices named. We can procure and send any one or all of them when desired, as noted above.

OUR BASKET

Into which are thrown all sorts of paragraphs—such as NOTES *and* REPLIES *to* CORRESPONDENTS, *with Useful or Interesting Extracts from their Letters, together with Gleanings of various kinds from various sources.* ☞ *The printers always have access to this Basket when they "have nothing else to do."*

A large amount of prepared "Basket matter" has accumulated, and scores of letters are still waiting consideration. If our correspondence continues to increase at the recent ratio, we shall have to both enlarge the paper and employ additional help in this department. The enlargement will be made by November, or before.

Housekeeping in the Country.—Emily's excellent letter is in type for next No.

Sewing Machines.—J. F.'s article in type waiting room.

Draining.—The queries of Albert Mackey and others will be answered in the series of articles on this topic. The chapter designed for this number has been necessarily omitted for want of time to prepare it.

Drain Tiles in Sand.—J. C. Reily, of Monroe Co., N. Y., says stone drains choke up in sand, and asks if drain tile will be affected in the same way. We answer no, if the tiles are laid with close fitting joints. The water passes *through* the porous tiles which answer as a strainer to keep the sand out of the water channel.

Bee-Keeping in Winter.—J. M. Maine, of Schuyler Co. We have marked your communication for the October number when it will be in season.

Sugar Cane Suckers.—A "New Subscriber" at Berlin, Ind., says many of the stalks of the sorgho have seven suckers each, and enquires if he shall pull them out. We should say cut them up and feed them if there is a sufficiency of main stalks. When planted in hills, however, on good soil, as many as five or six stalks may be left to grow together. It is desirable that all the stalks should mature at the same time, if designed for pressing, and the weaker, backward shoots may quite as well be out of the way at once. Cut and not pull them, to avoid injuring the stalks remaining.

Corn-Topping.—D. Ellsworth, Harwinton. We do not believe in "topping" corn before ripe. The upper stalks and leaves are quite as essential as the roots to elaborate the sap, and they should be left on until the whole stalk, with the ear, is cut, just before full hardening of the kernel. Hilling corn we cannot discuss here. Hill and flat culture are both good sometimes, depending entirely upon the particular soils under treatment.

Blacksmith Shop Sweepings—Muck.—W. Winchester, Alleghany Co., N. Y. These are valuable, especially the hoof parings and horse droppings, but should not be mixed with ashes or lime unless just before putting them into the soil. They may well be thrown into a manure heap. Two of our associate editors have used a few loads of Smith's sweepings on their gardens the past two years, adding nothing with them, and the result has been highly satisfactory. "Raw muck," as a direct manure, is not equal to good stable manure, though excellent to loosen the soil when that is needed. Get out all the muck possible during dry weather to mix with the cattle droppings during Winter.

Wire Worm.—The best advice we can give J. Fraizer, of Wilmington, is that given us when a boy learning to hoe corn, viz: make *two* worms of every one we found. Salt, lime and ashes, are offensive to these worms, and when mixed with manure are good preventives. Corn is frequently injured by them, and we advise soaking the seed in copperas water, and rolling it in lime when planting on land infested by the wire worm, which attacks the kernel.

Peabody's Strawberry.—D. C., Richmond, Ohio. We have a few plants growing and "running" well. We raise nothing of the kind to *sell*—may, perhaps, distribute a few plants next Spring to localities where we have a large number of readers. We have not fruited this plant yet, and therefore cannot tell how it will do in this latitude.

Leaky Roofs.—A correspondent says: Four pounds rosin, one pint of linseed oil thoroughly mixed and applied with a brush, while hot, will effectually stop leaks by the side of chimneys, skylights or where an L or wing is joined to the main body of the house.

Grape Grafting.—A friend informs us that having some scions of a choice grape sent him, he tried them in various ways upon a barren vine growing in his yard. The cleft grafting, usually recommended for the grape, was an entire failure, and the only one which united was inserted in a gimlet hole of the size of a wooden pencil bored into an exposed portion of the root. The scion was rounded to a point and pressed firmly into the hole and the earth replaced about it.

Cooking.—Dolly's letter (Ill.,) is received, and is marked for a chapter at first opportunity.

Pickling—Vinegar.—"Subscriber" Lawrence, Kansas Territory. We are not certain as to the "chemical colorless fluid in pickle jars. We have found in these apparently only vinegar, and have always understood that the vinegar used is made from grapes, or the lees of wine. A little alum and salt are sometimes added to give a bright green color to the pickles, say two-thirds of a teaspoonful of salt and a table-spoonful of alum to a gallon, boiled in the vinegar. About the only pickles *we* really relish are made of young black walnuts, or butternuts. These are gathered when a pin can be thrust through them, and either washed by stirring thoroughly in ley, or scalded in water and rubbed with a cloth, to remove the roughness. Next soak in salt brine a week or so, and pierce them through with an awl or needle, and put them in close jars, covering with scalding vinegar. Some add to the boiling vinegar, cloves, cinnamon, pepper and ginger, and also mustard seed. Cucumbers, small and fresh gathered—cut, not pulled—may be kept a long time in salt brine. Before using, soak in fresh water and put them into warm vinegar, which will thoroughly penetrate them in a few days. Cucumbers, green tomatoes, peppers half grown, nasturtiums, peaches, pears, cherries, onions, cabbage, green beans, radish pods, &c., are all pickled by putting them directly into vinegar. Many persons boil cloves, nutmegs, ginger, pepper, cinnamon, onions, &c., for three or four minutes with the vinegar before using, any or all of these to suit the individual fancy or taste. A little alum boiled with them gives the green color. Peaches are often kept in brandy. Common whisky may be substituted for vinegar for most kinds of pickles, especially cucumbers. *Vinegar*, in the absence of cider, may be made in various ways. Ten gallons of clean soft water, one gallon of molasses, a gallon of whisky and a pint of fresh yeast, put into a cask with a sheet or two of white paper, will produce a good vinegar in five or six weeks, if standing in the sun or a warm room. The bung must be kept open to admit air, covering it with wires or millinet to keep out insects. Ten gallons of water and twenty pounds of brown sugar, put into a cask with a little yeast, and left in the sun or a warm room, will produce a good vinegar in three to six months. Sweetened water, sweetened tea, or any sweet liquid added to a vinegar cask from time to time, will keep up the supply. *Beet Vinegar* is made by washing sugar beets, grating them fine, pressing out the juice—a cheese press will do for this. Put the juice in a barrel and cover the bung with gauze, and let it stand in the sun 15 or 20 days. We believe a bushel will produce about 6 gallons of excellent vinegar.

Tomatoes, Preserving and Drying.—Sea Island (Geo.) Subscriber's letter came too late for last month's "Basket." See directions for preserving tomatoes on page 185. They may be dried, by cooking as if for the table, *without seasoning*, then spread on plates and dried into thin sheets in the sun, finishing off in the oven if necessary. Thus prepared they may be kept a long time. Moistened and cooked slightly, with seasoning, they will be almost "as good as new"—not quite. *Fine Tomato Figs*, are prepared thus: Remove the skin by dipping in hot water, put them in an earthen jar with equal weight of sugar; after two days pour off liquid and boil and skim it till clear, then pour it over the tomatoes; two days after boil and skim as before; in two days repeat this the third time, and in two days more take out and dry the tomatoes for a week or so on large earthen plates, and pack away in small wooden boxes, with fine white sugar between the layers. They will keep for years, and we *know* they are good. Apples cut up, and boiled in the syrup left, makes a nice sauce.

Currant Wine.—O. W., (whose letter we have not room to print entire,) sends us the following two recipes for Currant Wine, taken from the private Cook Book of his mother, commenced in 1792. Her currant wine and preserves were noted for their superiority. He thinks the first recipe was most used. *Good* sugar was considered an important matter. A brother now has excellent current wine made the year he was born, (1806,) as well preserved as any "*South Side*" ever brought from Madeira. 1*st Recipe.*—Strain the currants through a cloth, and to each quart of juice add 3 quarts of water and 4 pounds of sugar, (1 quart of water to each gallon of liquor.) The third day after filling up the cask, make up any shrinkage by adding some of the liquor reserved for that purpose; bung it up tight and leave it undisturbed a *twelve months*; then bottle. 2*d Recipe*,—To a gallon of currants (the fruit, not the juice) add one gallon of water; bruise them well; strain through a cloth, and add to each gallon of the liquor 2½ pounds of *good* brown sugar. Put into a cask, as above; let it stand six months; then bottle.

Wisconsin Lands.—Joseph Clowes, of Star Prairie, St. Croix Co., Wis., writes us, quite at length, in glowing terms of the country thereabouts. Many others, at various points in the West, write similarly of their several localities—indeed, so numerous are such letters, that should we publish them, our paper would need to be doubled, and nothing else inserted in it. These letters are interesting to us personally, as they help us to a knowledge of the "Great West," which we are daily studying, and they would interest many other *individuals*, but not, perhaps, the great mass of our hundred thousand *readers*. Mr. Clowes states one fact which we have before impressed upon those seeking new homes, viz.: that there are thousands of chances to buy just as good land east of the Mississippi as west of it, and at lower prices, We have the present season seen hundreds of thousands of acres of good lands in Illinois and Wisconsin. that can be bought for $10 to $20 per acre, and almost the same may be said of States still further east.

Corn Suckers.—J. B. Reeve, Shelby Co., Ill., and several others. The King Phillip variety requires no different treatment from others. We think it usually advisable to remove suckers. They seldom yield corn, and if taken off while young they leave more room, more air, more sunlight, and more roots for the bearing stalks. If there is a thin stand in the hills, the suckers may be left to grow for fodder. Other questions of J. B. R. have been answered in part, and the others will receive attention in their season.

Chinese Sugar Cane Cutting.—To inquiries as to *time* of cutting for grinding we can give no definite answer, based on experience, as everything connected with this plant is still new. From the examination of our own canes last year, and what we can gather from others, the best stage for cutting will *probably* be just as soon as the seed is sufficiently mature to be gathered, but not fully ripe. For cattle feed it may be cut at almost any stage of growth previous to the hardening of the canes. If cut now, it is said to sprout for a second growth. This needs trying at the far North

Stunted Unthrifty Pear Trees.—Wm. Day, of Morristown, N. J., writes more fully upon these than we now have room for. He considers that one great cause of the unthriftiness of the pear lies in the fact that many of them are worked (budded) upon sucker stocks. He tried the experiment by planting out 1,000 of these suckers, obtained from old trees, and after nursing them for several years, during which he budded some and grafted others, giving all careful culture in good ground, he was compelled to discard the whole of them. A neighbor of his held on to some for ten years, but failed to get *four good trees* out of 100 planted. We fully indorse his (Mr. Day's) closing remarks, viz.: "Good thrifty stocks and clean culture will alone produce vigorous and thrifty trees, and no *respectable nurseryman* will use any others."

Almonds—Apricots.—J. M., of Onondaga Co., N. Y., will find the soft-shelled sweet almond too tender to succeed well for out-door culture, in his latitude, or indeed anywhere north of Philadelphia. Only the bitter, hard-shelled varieties, are hardy, and these are of little value except as stocks for working the apricot upon. The apricot, itself, was badly killed around New-York City the past two Winters.

Wild Onions.—"A Subscriber," at Green Hill, Tenn., asks how to rid his farm from these. Proper tillage under the plow and hoe should effectually clear them from each field, as it is cultivated in rotation, if no foul grass seed is used in laying down. To free grazing lands without plowing, turn *sheep* upon them early in the season. Sheep are fond of the tops and by pasturing for a day or two as often as they attain a few inches in hight the garlic or wild onion will disappear in one or two seasons. If any one knows a better way we shall be glad to make it public.

Budding—Getting New Varieties.—D. C. of Maryland, asks whether he shall bud in the branches, or near the ground. If the trees are less than one inch in diameter at the base, we advise budding near the bottom; if the tree is larger than this, bud in the limbs, or graft next Spring.

"Michigander," having an orchard of young ungrafted trees, proposes to bud a portion of the limbs of each tree, and allow one branch to go unchanged, in order to produce new varieties of value, or, at least, test the qualities previous to changing the whole. This will be a tedious process. If the trees were produced from seed, the probability is that ninety-nine in a hundred may be improved by new scions. Nurserymen often take scions from twenty to forty seedlings, and graft them into as many limbs of one large tree, carefully marking each. In the course of two years, most of them will bear, when any choice varieties can be selected, and the original tree then be used to take scions from,

Egypt, Ill.—"Young Egyptian's" letter is received. We have recently been to your Capital, "*Cairo*," and all along northward, and may have something to say about it. In the meantime, please tell us about the practical operations, or modes of culture, pursued in your vicinity, briefly and to the point, as many ideas in as few words as possible. Please write on but one side of the paper.

Kohl Rabi.—J. C., West Brattleboro, Vt. See page 140 of this volume, (June No.)

Grapes—Lupin polyphylle.—C. Hoffman, Jr. of Dauphin Co., Pa., will find his grape queries answered at page 158, (last number.) The "Lupin *polyphylle*" is a flowery plant; an annual. Judging from the specimen we are growing from Patent Office seed, it is not specially interesting.

Rape.—E. Meldahl, of Parkersburg, Va., writes that he has raised rape after a wheat crop; it was eaten off three times by cattle; started early in the Spring, and a volunteer crop of wheat came up among it, both doing well; the rape was somewhat injured by insects; seed not so large and plump as the imported. There being no oil mill near, he dropped the cultivation. The haying items in his letter are too late to be of use this season.

White Rye.—A. Gray, of Pendleton Co., Ky. We have heard of the "White Rye" to which you refer, but have as yet been unable to obtain anything definite respecting it. Can any one give any information on this topic? Thanks for your kind words of approval.

DIRECTIONS FOR SUGAR MAKING.

PHILADELPHIA, July 16, 1857.

Editor of the American Agriculturist:

DEAR SIR: A reply to your inquiries in relation to the requisite instruction for arranging mills, boilers, tanks, fitters, coolers, &c., &c., and then also, the "modus operandi," after all are ready, will be rather difficult to give in a manner satisfactory, even to ourselves, with the light before us. We have spared no pains or time in collecting information to enable us as far as possible to give to others engaged in the pioneering of this new Sugar Cane movement. We shall do the best we can, however, and urge those engaged in it to be thorough in experimenting, try all the modes and means known, and be sure to keep some careful reccord for future use. In the course of two weeks we expect to be in possession of the results of a test in Florida near Orange Springs, which shall be made public *whatever it is*. Mismanagement has deprived us of the use of the cane we had planted in the hot house for early test. The first that will be worked besides that in Florida, will be at Gov. Hammond's about the 10th or 15th of August, Col. Peters tells us that his 70 acres of "Sorgho," is now about six feet high and will be ready from 1st to 15th September; he has some earlier planted that he will work about the 20th of August. On this he uses a two horse mill just being shipped by us, and a steam power mill for his large crop. He only designs making syrup or molasses except, perhaps a small experiment with sugar.

The cane must be allowed to mature fully, not attempting to work it until the seed is fully out of the milk, and as some of the tillers will be rather later than others it will no doubt be better to throw them out for fodder than jeopardize the rest. The leaves should be stripped off before cutting and the top cut off with the seed some two-and-a-half or three feet down, as there is not much saccharine juice in the upper end. Then if your apparatus is ready, cut, and grind as fast as you cut, and boil as fast as you grind, since the less time the stalks or cut cane is exposed the better. The juice, if concentrated by the usual process will pass through two seives—first No. 8 and then No. 16 set over a large tin funnel immediately under the mill (which will be set about three feet from the ground upon three posts firmly bedded in the ground about three feet.) This funnel is contracted to a pipe of two inches diameter and running under ground past the horses track, and entering a tank either lined with tin or painted thoroughly, and varnished so as to be impervious to the juice and easily washed clean, when left idle for even one hour. The juice is raised by tin buckets or tin or copper pump from this to a clarifier. This may be of sheet iron No. 8, and about 12 inches deep and large enough to fill your first kettle, and set higher with draw off pipe and stopcock entering at the bottom. This clarifier is set so that the heat is applied under it after leaving the range of boilers and may be shut off by damper into another side flue, while you discharge this pan. The heat being applied slowly, a thick scum rises and when near boiling you change dampers and draw off until the juice begins to show sediment or scum, then clean the pan and fill again, and so on. Now in this first kettle you add lime well slacked and sifted, until your juice will not change the color of litmus paper (which can be got at any good drug store quite cheaply.) While the juice is acid it will change it to a reddish hue, and if thus boiled will neither granulate nor keep sweet as molasses. With our two horse mill of rollers 17 inches long, we use three boilers holding 60, 40 and 20 gallons, with the latter immediately over the fire and set with flaring walls or jambs, rising above each about 6, 8 and 10 inches, and completely cemented with water-lime. The last or 20 gallon boiler should be higher than the 40 and that above the 60, so that the scum will run through the gap into the next kettle behind successively. The scum should also be thrown back whenever accumulated into the hindmost kettle. If you have no experience in testing the syrup in

the "battery," a thermometer made for that purpose, can be obtained in most large cities for a dollar or so. It requires to be graduated up to say 250°. as about 240°. Fahrenheit is considered the proper point. Should the heat rise above this, you must open your fire doors and throw over the fire, an armfull of begasse from the mill, and then discharge the syrup as quickly as possible and refill from the next kettle, thus continuing successively.

The coolers into which you discharge may be of good clear white pine without paint inside, and 12 inches deep, and large enough to hold 4 charges, and then left to cool and granulate, or if you make molasses only, you will use barrels, staves of oak and heads of pine or cypress thoroughly made.

In regard to crystalizing the sorgho sugar, we, to-day, went with Col. Peters, to the sugar refinery of Messrs. Eastwick & Brothers, No. 73 Vine-st. of this city, carrying with us some sugar made from the sorgho, by Col. Peters in Georgia, and by Mr. Wray in France. These specimens were subjected to the severest chemical test, and examined under a powerful microscope, and both proved to be true crystalizable sugar and not glucose. As the examiners are perhaps not surpassed for accuracy in this country—not even in Boston—we deem these experiments highly satisfactory. They promise a public report of the examination soon.

Yours &c.

HEDGES, FREE & Co.

What Seeds do you Want?—A Question to all Subscribers.

We have determined to offer to all subscribers on our books next February, a selection of at least *three* kinds of seed, and if the system works well, as we think it will, we shall doubtless continue the plan from year to year. As heretofore stated, our distribution the present year amounted to full *one hundred thousand packages*, but the plan was originated late in the season—too late to admit that regularity and uniformity which would be desirable, and we are now trying to "take time by the forelock," and get ready before hand. We have a large variety of seeds now growing, and have a regular experienced seedsman permanently employed to attend exclusively to this department. How many of our home-grown seeds will mature well, and how many will prove worthy of distribution we cannot yet tell. In December or January, (or as early as possible,) we shall announce a list of seeds on hand to be selected from, but that list will necessarily be limited to fifteen or twenty kinds more or less, and it will then, perhaps, be too late to secure other rare or choice varieties wanted. Dealers in seeds are already engaging their stock for the Winter and Spring sales. We have no intention to come in competition with the regular trade. Our plan is simply to collect and disseminate among our readers, (two or three varieties to each,) such choice and reliable seeds as may not find their way into the general market. This, from our location, and by a wholesale operation, we can do cheaper and to better advantage than it can be done in any other way. Thus, we may collect and send out to a hundred distant subscribers, at the expense of one or two dollars, what might cost them ten or twenty dollars, even if they could get them on any terms. But while we aim at getting new and rare seeds, we are convinced by the experience of the present year that there are thousands of subscribers who will prefer to receive packages of more common garden and flower seeds, in preference to the new or rare. For example, we have had hundreds of applications for Salsify, Lettuce, Carrots, Onions, Beets, Cauliflower, Cabbage, Turnips, Sage, Mignonette, Cypress vine, Clarkia, Double Balsam, Nemophilla, Viginia Stock, Sweet Peas, Lupines, and a multitude of others. To meet such calls we shall offer in our free list a variety of good common seeds.

What we ask now is, that any and every subscriber having occasion to write to us on business or other matters, would name where practicable some two or three kinds of seeds they would like to receive at the time of the next Annual Distribution. All such applications will be noted down by our Seed Clerk.

By having timely notice of this kind we shall be able to make early provision to secure a stock. Doubtless many seeds will be called for which can only be procured across the Atlantic, but we shall endeavor to obtain everything of the kind desired if called for in due season. As we do everything of this kind without charge, it is necessary that we be able to condense the labor and expense as much as possible, by sending abroad for seeds early and but few times. We repeat, then, *let every subscriber desiring any particular kind of field, garden, or flower seeds, notify us of the fact as soon as he or she can do so without any addition al trouble or expense* for writing or postage. We trust no one will write to us to sell them a quantity of this or that kind of seed. We shall have none to *sell*. Our whole seed business is confined exclusively to offering premiums to *all* subscribers. *We have nothing but Agriculturists to sell.*

STATE AGRICULTURAL EXHIBITIONS 1857.

[The following list of **171** Exhibitions, derived mainly from our own correspondents, has been compiled with great care and will be found nearly if not quite correct.]

Name.	*Where Held.*	*Date.*
United States	Louisville, Ky	Sept. 1— 5
Kentucky Ag. and Mec.	Lexington	" 8—12
American Institute	New-York	" 12
Ohio,	Cincinnati	" 15—18
Western Virginia	Wheeling Island	" 16—18
Canada East	Montreal	" 16—18
Illinois,	Peoria	" 21—25
Western Pennsylvania	Pittsburg	" 22—25
Western Pennsylvania	Pittsburg	" 22—25
N-Western Fruit-Grower's Ass'n,	Alton, Ill.	" 29
Maine	Bangor	" 29 Oct. 2
Pennsylvania		" 29 " 2
Michigan	Detroit	" 29 " 3
Wisconsin	Janesville	" 29 " 2
California	Stockton	" 29 " 2
Canada West	Brantford	" 29 " 2
New-Jersey	New-Brunswick	" 29 " 2
Vermont	Montpelier	" 30 " 2
Indiana	Indianapolis	Oct. 4—10
New-York	Buffalo	" 6— 9
Iowa	Muscatine	" 6— 9
New-Hampshire	Concord	" 7— 9
Tennessee	Nashville	" 12—16
Kentucky	Henderson	" 13—17
Connecticut	Bridgeport	" 13—16
East Tennessee	Knoxville	" 20—23
North Carolina	Raleigh	" 20—23
Massachusetts	Boston	" 20—24
Maryland	Baltimore	" 21—25
Alabama	Montgomery	" 27—30
West Tennessee	Jackson	" 27—30
Virginia		" 28—31
South Carolina	Columbia	Nov. 10—12

COUNTY EXHIBITIONS.

MAINE.

South Kennebec	Gardiner	Sept. 23—25
Somerset	Skowhegan	" 23—25
North Kennebec	Waterville	" 15—17
Franklin	Farmington Centre	Oct. 1— 2
North Franklin	Strong	" 6— 7
Oxford	South Paris	" 6— 8
Androscoggin	Lewiston	" 6— 8
West Somerset	Madison Bridge	" 7— 8
Piscataquis	Dover	" 7— 8
North Aroostook	Fort Fairfield	" 7— 8
North Somerset	Bingham	" 13—14
Kennebec	Readfield	" 13—15
Lincoln	Waldoboro	" 13—15
East Somerset	Hartland	" 14—15
West Oxford	Fryeburg	" 21—23

NEW-HAMPSHIRE.

Sullivan	Charleston	Sept. 23—24
Hillsborough	Milford	" 30—
Rockingham	Exeter	Oct. 1— 2

VERMONT.

Champlain	Vergennes	Sept. 17—18
Franklin	St. Albans	" 23—24
Orange	Chelsea	" 23—24

MASSACHUSETTS.

Hampden	Springfield	" 30— " 1
Essex	Newburyport	Sept. 28—Oct 3

CONNECTICUT.

Windham	Brooklyn	Sept. 16—17
New London	Norwich	" 30 Oct 2

NEW-YORK.

Young Men's Nat. Ag. & Mech. So.	Elmira	Sept. 1— 5
St. Lawrence International	Ogdensburg	" 9—11
Essex	Elizabethtown	" 10—11
Rensselaer		" 15—17
Saratoga	Mechanicsville	" 15—17
Albany	Albany	" 15—17
Cortland	Homer	" 15—17
Jefferson	Watertown	" 16—17
St. Lawrence	Canton	" 16—18
Wayne	Lyons	" 16—18
Monroe	Rochester	" 21—23
Chenango		" 22—24
Franklin	Malone	" 23—25
Queens	Jamaica	" 24
Livingston	Geneseo	" 24—25
Westchester	Sing Sing	" 29 Oct. 1
Ontario		" 29 " 1
Delaware	So. Kortright	" 30 " 2
Orleans	Albion	Oct. 1— 2
Palmyra Union	Palmyra	" 14—16

NEW JERSEY

Sussex		Oct. 6— 8

PENNSYLVANIA.

Delaware	Chester	Sept. 17—19

MARYLAND.

Washington	Hagerstown	Oct. 13—16

VIRGINIA.

Valley	Winchester	Oct. 13—16

KENTUCKY.

Clarke	Winchester	Aug. 19—21
Harrison	Cynthiana	" 25—28
Kentucky Central	Danville	Sept. 11—
Bourbon	Paris	" 22—25
Campbell	Alexandria	" 22—26
Logan	Russellville	Oct. 6— 8

OHIO.

Fayette	Washington	Sept. 8—10
Hamilton	Carthage	" 8—11
Warren	Lebanon	" 9— 1
Geauga (free)	Claridon	" 16— 8
Richland	Mansfield	" 22— 3
Trumbull	Warren	" 22—24
Clinton	Wilmington	" 23—25
Miami	Troy	" 23—25
Hardin	Kenton	" 24—25
Darke	Greenville	" 23—25
Stark	Canton	" 23—25
Madison	London	" 28—29
Columbiana	New-Lisbon	" 28—30
Lake	Painesville	" 28—30
Portage	Ravenna	" 28—30
Morgan	McConnellsville	" 29 Oct. 1
Knox	Mt. Vernon	" 29 " 1
Cuyahoga	Cleveland	" 29 " 1
Adams	West Union	" 29 " 2
Logan	Bellefontaine	" 29 " 2
Clermont	Olive Branch	" 29 " 2
Brown	Georgetown	" 29 " 2
Gallia	Gallipolis	" 30 " 2
Medina	Medina	" 30 " 1
Erie	Huron	" 30 " 2
Greene	Xenia	" 30 " 2
Pickaway	Circleville	" 30 " 2
Preble	Eaton	" 30 " 2
Ashtabula	Jefferson	" 30 " 1
Adams	West Union	" 29 " 2
Muskingum	Zanesville	" 30 " 2
Belmont	St. Clairsville	" 30 " 2
Tuscarawas	Canal Dover	" 30 " 2
Union	Marysville	Oct. 1— 2
Putnam	Kalida	" 1— 2
Defiance	Farmers Centre	" 1— 2
Geauga	Burton	" 1— 3
Wayne	Wooster	" 1— 3
Wyandot	Upper Sandusky	" 1— 3
Morrow	Mt. Gilead	" 1— 3
Williams	Bryan	" 6— 8
Ottawa	Port Clinton	" 6— 8
Lorain	Elyria	" 6— 8
Harrison	Cadiz	" 6— 9
Summit	Akron	" 7— 9
Seneca	Tiffin	" 7— 9
Ross	Chillicothe	" 7— 9
Wood	Bowling Green	" 7— 8
Delaware	Delaware	" 7— 9
Licking	Newark	" 7— 8
Butler	Hamilton	" 7— 9
Washington	Marietta	" 7— 9
Clark	Springfield	" 7— 9
Guernsey	Cambridge	" 8— 9
Champaign	Urbana	" 13—16
Jefferson	Steubenville	" 14—16
Fairfield	Lancaster	" 15—17

MICHIGAN.

Ionia	Lyons	Sept. 23—25
Ottawa	Eastmanville	" 22—24
Jackson	Jackson	Oct. 7— 9
Hillsdale	Jonesville	" 13—14

INDIANA.

Henry	New-Castle	Sept. 23—25
Howard	Kokoma	" 25—26
Dearborn	Aurora	" 29 Oct. 2

ILLINOIS.

Morgan	Jacksonville	Sept. 8—11
Tazewell	Tremont	" 17—18
Carroll	Mt. Carroll	" 22—24
Washington	Nashville	" 30 Oct. 1
Edgar	Paris	Oct. 1— 2
Champaign	Urbana	" 6—
Randolph	Sparta	" 7— 8
Winnebago	Rockford	" 13—15
Pike	Pittsfield	" 14—15
Sangamon	Springfield	" 15—18

IOWA.

Lee	Westpoint	Sept. 23—25
Mahaska	Oskaloosa	" 29—30
Jefferson	Fairfield	" 30 Oct. 1
Monro	Albia	" 30 " 1

MISSOURI.

North East	Paris—	Sept. 15—18
Lafayette	Union	Oct. 6— 8
Franklin	Union	" 8—10
Marion	Palmyra	" 14—17
Clay	Liberty	" 14—17

What is the Postage on this Paper?

We say 1½ cents per quarter, or 6 cents a year and in proof, on the last page of the January number (bottom of middle column) we published the decision of the Post Office Department at Washington. But still we have complaint after complaint from subscribers that some Post Masters, who are "wise above what is written," still continue to charge 12 to 25 cents a year. We now request *every* subscriber charged over 6 cents a year if, paying postage in advance, to send us the particulars and we will at once refer each case to the Post Master General. This applies to every part of the United States and Territories. All papers going beyond the United States boundaries are regularly pre-paid by us at the N. Y. Post Office.

Does Farming Pay?

We have for a long time had a "hankering" after one of those "Baronial farms," out West, say in Illinois, but every now and then an item comes up hereabouts, that puts a different look upon things. Here is one:

A friend residing 20 miles from the city on a Railroad delivers to a single Hotel in this city, 400 quarts of milk daily for which he receives 5½ cents per quart the year round. This is but one instance, there are plenty more. If such business does not *pay*, we should like to hear of a better.

Pennsylvania Matters.

THE FARM JOURNAL & PROGRESSIVE FARMER.

This Agricultural Journal, published for several years at Philadelphia, has been discontinued, and its place will be supplied by the *American Agriculturist*, which will be furnished to all subscribers to the Farm Journal during the whole time they have paid for that paper. The full particulars have been sent out to eacn of those subscribers in a Circular from the Publishers, Messrs. Emlen & Co.

We welcome you into our *Agriculturist Family*, already very large. Please consider yourselves perfectly at home. We trust you will find this journal not only satisfactory in the present time, but worthy of the future patronage of yourselves, your friends and neighbors. We shall endeavor to merit it at least.

We respectfully request those who have formerly contributed to the Farm Journal, both as editors and correspondents, to extend their favors to the *Agriculturist*. We are always glad to receive any practical suggestions on Agricultural and Horticultural topics which will be useful to others.

[The present number is hardly a fair specimen of the usual issues of the Agriculturist, as most of the contributing Editors have been too busy in gathering their crops, to use the pen, and the publishing Editor has been absent during several weeks on a tour of observation through the country, so that the paper has been hastily thrown together from such materials as were chiefly on hand. This number is also issued a few days later than usual.]

Pennsylvania Farm School.

HARRISBURG, Pa., 3d July, 1857.

At a meeting of the Board of Trustees of the Farmer's High School of Pennsylvania, the following proceedings were had:

Whereas, Valuable contributions of seeds, plants, trees, scions, books, implements, &c., have been made, not only by our own citizens, but by citizens of other States, to the Farmer's High School of Pennsylvania, which have materially advanced our efforts to improve and equip the Nursery, the Garden, the Farm and the Library; and as we desire to perpetuate the remembrance of the benefits received, and hope at some future day to be able to reciprocate the favors thus conferred:

Resolved, That the Trustees of the Farmer's High School of Pennsylvania, hereby direct Wm. G. Waring, Esq., to record in a book to be provided and set apart for that purpose, all donations to the Institution, with the date thereof, and the names and places of residence of the donors; and that the receipt thereof be acknowledged by him, with the thanks of the Board of Trustees: and that a notice of such donation be published in the Pennsylvania Farm Journal, and a copy thereof be sent to each donor.

I do certify that the above, and foregoing, is truly copied from the minutes of the Board of Trustees, this fifth day of July, 1857. JAMES IRVIN, Secretary.

Editor of the Farm Journal, (now American Agriculturist):

am directed by a resolution, passed at a meeting of the Board of Trustees of the Farmer's High School of Pennsylvania, July 3d, 1857, to send you for publication in your journal a list of the contributions of seeds, plants, books, implements, specimens, &c., which have been made to the Institution, and to send a copy of such notice to each donor.

I am also instructed to record all such donations in a book to be set apart for that purpose. For want of such a record of contributions already received, I fear that the following list is very partial and imperfect.

There have been presented to the School, and received here, (the items being entered in the record) from

Thos. Meehan, Germantown, Pa.—1 bale of trees, of 14 different rare kinds for the arboretum.

Frederick Pfeiffer, Home, Pa.—5 plants of genuine German prunes, and recipe against curculio.

H. R. Robey, Fredericksburg, Va.—Trees of choice new Southern apples, very long keepers; Kalmia's new chionanthus, &c.

Dr. C. W. Grant, Newburg, N. Y.—32 species and varieties of rare willows, a very interesting and useful collection, with offer of 50 more.

——, *Newburg, N. Y.*—3 trees, and many scions of rare fruits; 10 plants rare evergreens, (5 species); 36 plants rare shrubs, (17 species); 42 species and varieties of finest herbaceous flowering plants; 31 papers annual and biennial flower seeds.

(I regret that I have not permission to publish the name of the generous donor of this very valuable contribution from one of the most eminent horticulturists of the country, who thus diffuses the pleasure and advantage he enjoys in cultivating the beautiful productions of nature.)

B. B. Foster, Lewisburg, York Co., Pa.—Seeds of papaw, persimmon, chinquapin, honey locust; 25 trees of 13 rare varieties of budded peach; 1 do. of Whately heart cherry; 2 do. of seedling plum; 6 do. of papaw.

A. Boyd Hamilton, Harrisburg—1 sett of Proceedings of Pennsylvania State Agricultural Society.

Theo. H. Cremer, Esq., Huntingdon, Pa.—Seed of Hungarian Spring wheat; do. Turkish flint; 1 panicle Chinese sugar cane, of his own growth.

R. C. Walker, Sec. Pa. Ag. Soc.—1 sett of Proceedings of State Agricultural Society; one do. do. Indiana State Agricultural Society.

W. P. Harris, Nittany, Pa.—Seeds of choice vegetables.

O. T. Noble, Lockhaven, Pa.—1 quart seeds of Nyssa multiflora; 1 quart white beans.

Geo. Thorn, Clearfield Co., Pa.—8 heads Nepaul barley; 20 quarts Poland oats; 3 tubers fine Mexican potatoes; seeds of vegetables.

Samuel Miller, Lebanon, Pa.—18 varieties vegetable seeds of rare sorts; 8 varieties strawberry, including 1 seedling of his own growth; 1 Louisa grape, do.; 6 flowering plants

Thomas P. James, Philadelphia, Sec. Penn. Hort. Soc.—Proceedings of 2nd and 3rd Sessions of American Pomological Society.

William Waring, Kivernoll, Herefordshire, Eng.—Seedling pear stocks, larch, &c.

Josiah Hoopes, Westchester, Pa.—Box of cuttings of Isabella grapes.

C. Francis, Springfield, Ill.—Transactions of Illinois State Agricultural Society, and copies of Western Agriculturist.

Ellwanger & Barry, Rochester, N. Y.—24 deciduous shade trees, of choice sorts; 24 large evergreens, of sorts; 24 hardy perpetual roses, 12 sorts. (all remarkably fine)

J. M. Summy, Manheim, Pa.—Scions of 7 varieties of pear, including 1 seedling.

S. T. Shugart, Washington, D. C.—15 vols. Patent Office Reports; 15 varieties seeds.

J. M. McMinn, Williamsport, Pa.—Scions of Tompkins Co. King apple, from original stock.

Jas. Murdock, jr., Pittsburg, Pa,—8 varieties of Kirtland cherries, on dwarf stocks.

H. N. McAllister, Bellefonte, Pa.—Seed of wheat and corn, proved sorts.

A. G. Hanford, Waukesha, Wis.—2 varieties superior early potatoes; 1 do. late do.; copies of North Western Farmer.

Edward Tatnall, Wilmington, Del—Scions of 9 varieties of new pears.

R. Waring, Tyrone, Pa.—A collection of fruit tree stocks, hedge plants, seeds, and shrubbery.

Dr. J. K. Eshleman, Downingtown, Pa—Scions of rare pears; choice of varieties of willows.

Dr. Wm. R. Brincklé, Philadelphia.—Scions of dative apples, grapes, pears, and plants of Brincklé's raspberries.

——, *Tyrone, Pa.*—1 hand corn-planter.

Wm. Canby, Wilmington, Del.—Cuttings of Delaware Burgundy grape, originated by him.

Henry Cabello, Bellefonte, Pa.—1 sod-plow.

H. L. Dieffenbach, Lockhaven, Pa.—A distinct variety of blackberry, and other plants, and valuable papers.

J. B. Garber, Columbia, Pa.—Several papers of rare and curious seeds.

A. Harshbarger, McVeytown, Pa.—Papaw and persimmon trees.

H. A. Dyer, Hartford, Conn.—Transactions of the Conn. State Ag. Society, 1855, and copies of 'Homestead,' &c.

M. B. Bateham, Columbus, O.—Ohio Agricultural Reports, 1853 and 1854; Ohio Pomological Transactions; copies of the Ohio Cultivator; scions of pears and of Western apples.

Samuel Emlen, Philadelphia.—Pamphlets relative to Agricultural Education.

Mrs. E. Petriken, Bellefonte.—35 varieties flower seeds.

Harbeson & Bros., Shenango, Lawrence Co.—Scions of new native apples.

Jas. A. Nelson, Mercer, Pa.—Scions of New-England apples and native peaches.

Chas L. Flint, Sec. Board of Agriculture, Boston, Mass.—Transactions of Massachusetts State Agr. Society.

S. D. Harris, Columbus, O.—Books and Magazines.

O. Tiffany, Chicago, Ill—Plan of fruit-drier.

Geo. E. Waring, jr., American Institute, New York.—Waring's Elements of Agriculture.

Dr. A. A. Henderson, U. S. N.—500 plants of cedar.

Prof. J. C. Holmes, Agr. College, Lansing, Mich.—Transactions of Michigan State Agr. Society; Agr. College Report and Circular.

Charles Scholl, Meadow Valley, Plumas Co., Cal.—Seeds of manzinete; silver pine and other trees and shrubs from the Sierra Nevada, (mostly growing.)

Geo. Bucher, Alexandria, Pa.—Plants of Concord grape, and new strawberries.

To all these contributors, and to others whose names may be overlooked in the necessary care of conserving their donations amidst a press of duties, the thanks of the Board of Trustees are hereby respectfully conveyed in pursuance of their resolution. It is pleasant to be able to say that all have been safely received, and that all seeds, scions, and plants are growing well, with very rare exceptions.

Many offers of implements, specimens, and machines, and of further contributions to the arboretum, nurseries, and gardens have been received, and thankfully accepted. Specimens of manures and means of culture can be used to *double* advantage, both in *field* experiment and for exhibition in the *rooms*. Curious examples of growth or illustrations of peculiar processes, or samples of any invention or manufacture connected with Agriculture, or specimens in any branch of Natural Science will be gladly received and carefully preserved, the buildings being now sufficiently advanced to admit of their reception and preservation.

For the present, packages by Express should be directed to the Farmer's High School, care of Adams' Express Agent, Lewistown, Pa., or if by way of the West Branch of the Susquehanna—to address by mail, WM. G. WARING, F. H. School, near Boalsburg, Pa.

Very respectfully,
WM. G. WARING.

Yale College Scientific and Agricultural School.

The Academic year will open September 16th. The programme of studies, lectures, laboratory exercises, &c., is greatly enlarged, and the advantages afforded are probably unequaled by any similar institution in this country, perhaps not in Europe. Three of our most profitable years of study were spent at the Yale Agricultural School, subsequent to our regular collegiate course, and the facilities are now better than ever. This department of the college is open to all classes, and is particularly inviting to those desiring to pursue the study of Scientific Agriculture, Practical Chemistry, Engineering, Geology, Minerology and other Natural Sciences, without entering upon a collegiate course. Circulars and any particular information desired, may be obtained by addressing Prof. S W. Johnson, New-Haven, Conn.

Devon Cattle and South Down Sheep for Sale.

Many of our readers will be interested in the sale of these animals, announced in our advertising columns. It is perhaps enough to say of the animals that they have been bred by Lewis F. Allen, of Black Rock, N. Y.

Blackberries.

Just at the moment of going to press, we have a letter from Geo. Seymour & Co., of South Norwalk, Conn., saying their New Rochelle or Lawton Blackberries, are making up for lost time, and will be ripe nearly as early as usual, notwithstanding the late season. We will, at the earliest moment possible, embrace their kind invitation to go and see what they think will be the finest show of this excellent fruit ever made. See in our advertising columns the two cards of invitation to the public, one and all, to go and see and *eat* Blackberries, this year, without cost. One "mouth waters" already.

☞ *With a single exception, the actual regular circulation of the Agriculturist to subscribers is about* **Fifteen Thousand greater** *than that of any other Journal in the World devoted to Agriculture and Horticulture only.*

Advertisements.

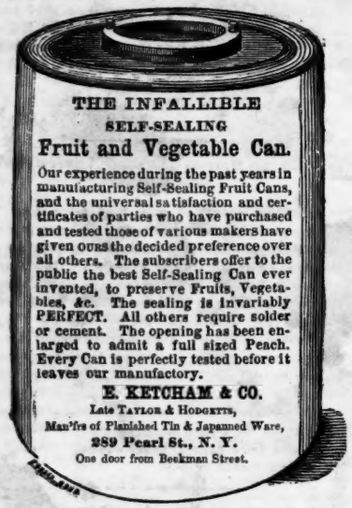
TERMS—(invariably cash before insertion):

Twenty-five cents per line (of ten words) for each insertion.

By the column or half column, $30 per column for the first insertion and $25 for each subsequent insertion.

☞ Business Notices *Forty* cents a line.

Advertisements to be sure of insertion must be received at latest by the 20th of the preceding month



TAYLOR & HODGETTS' INFALLIBLE SELF-SEALING FRUIT CAN,

WITH BURNETT'S ATTACHMENT.

Patented August 21, 1855.

It has long been a desideratum to preserve Fruits by some cheap method, such as would keep them fit for domestic use, a number of years. The expense of preserving with sugar is a serious objection. Free access of atmosphere causes the decomposition of vegetable matter. It is obvious that the exclusion of it must prevent this effect from taking place, and that, consequently, if *Berries, Fruits, Vegetables*, &c. &c. are completely kept from the contact of air, they cannot spoil. To effect this, the only safe and reliable article is

TAYLOR & HOGETTS' SELF-SEALING CAN.

It is so simple in its construction, that any one can close *Fifty Cans* an hour without the aid of a tinner; it requires neither *Solder, Cement* nor *Wax*. The article is very strong, and will last a number of years. The aperture is sufficiently large to admit a full sized peach.

Apricots, Plums, Pears, Cherries, Peaches, Strawberries, Raspberries, Blackberries, Tomatoes, Green Peas, Green Corn, Figs, Asparagus, Rhubarb or Pie Plant, and in fact each and every kind of Fruit and Vegetable, can be preserved for years in their fresh state, in any climate.

SIZES.

Quart, 3-Pint, Half-Gallon and Gallon.

☞ Trade supplied on liberal terms.

☞ Full directions for putting up the various Fruits and Vegetables accompany the cans.

E. KETCHAM & CO.,
289 Pearl-street, New-York.

Ammoniated Superphosphate of Lime.

The subscribers, who are manufacturers of the ORIGINAL Ammoniated Superphosphate of Lime, and having numerous testimonials from Farmers who have used it for the last five years, we offer it in confidence, feeling assured that it will render satisfaction. For sale in lots to suit purchasers.

ROGERS & BOYER,
111 (late 29) Market-street, Philadelphia.

☞Please to Read This.☜

TO PERSONS OUT OF EMPLOYMENT—Wanted, persons in every town and village, to circulate new and useful Pictorial Works. Book Agents, Farmers' Sons, everybody with a SMALL CASH CAPITAL, can make money by selling our books. Discount liberal. Catalogues and all letters sent free to applicants. For further particulars, address, postpaid,

ROBERT SEARS, Publisher,
No. 181 William-street, New York.

FIRST CLASS FAMILY JOURNALS.—LIFE ILLUSTRATED: A First-Class Pictorial Paper, weekly. $2 a year; $1 for half a year....WATER-CURE JOURNAL: Devoted to the Laws of Life and Health. $1 a year....PHRENOLOGICAL JOURNAL: Devoted to the Improvement of Mankind. $1 a year. The three Journals sent one year for $3. Address

FOWLER AND WELLS, No. 308 Broadway, N. Y.

WANTED—AGENTS TO SELL STEEL PLATE ENGRAVINGS, including the beautifully illustrated engraving of the "LORD'S PRAYER and TEN COMMANDMENTS." An active person, with a small capital, can make $50 to $60 per month. For particulars, address

D. H. MULFORD, 167 Broadway, New-York.

THE YOUNG MEN'S MAGAZINE.

A MONTHLY JOURNAL.

CONDUCTED BY RICHARD C. McCORMICK, JR.

Office 348 *Broadway, New-York.*

The contributors to the Young Men's Magazine are gentlemen of national reputations. The number of the work before us is of a high order of merit.—*Boston Transcript.*

It is a handsome periodical, filled with valuable matter, and characterized by a high moral tone and noble aim. We wish it all success.—*New-York Tribune.*

Each number contains a mass of intelligence touching YOUNG MEN'S SOCIETIES.

☞ Price 15 cents. Annual subscriptions $1 50. To be had of all dealers.

GENESEE VALLEY NURSERIES.

FRUIT TREES, ORNAMENTAL TREES, SHRUBS, ROSES, &c., &c.

The Proprietors of these well-known Nurseries have on hand a large and well-grown stock of

FRUIT TREES, ORNAMENTAL TREES, SHRUBS, ROSES, GREEN-HOUSE and BEDDING PLANTS, DAHLIAS, PHLOXES and other HARDY BORDER PLANTS.

The assortment of ROSES is very extensive, and embraces all varieties which could be obtained, and which are considered worthy of cultivation. Our collection of HYBRID PERPETUALS is the most complete in the country.

The GREEN-HOUSE DEPARTMENT receives particular attention, and the stock of Fuchsias, Geraniums, and other Green-House Plants, is large and varied. In the

FRUIT DEPARTMENT,

our stock consists of

APPLES, of the leading varieties, Dwarf and Standard.
PEARS, of all desirable varieties, on Quince and Pear stock.
PLUMS—A choice selection of well-grown trees of popular sorts.
CHERRIES—All the popular sorts, Dwarf and Standard.
PEACHES—A choice assortment.
NECTARINES, APRICOTS and QUINCES, in variety.
GRAPES—A complete assortment of both native and foreign sorts, including many of recent introduction.

SMALL FRUITS.

CURRANTS—Twenty-five choice sorts, including many new varieties.
RASPBERRIES, GOOSEBERRIES, BLACKBERRIES, and STRAWBERRIES of all new and approved varieties.

We have, for the accommodation of NURSERYMEN, STOCKS and SEEDLINGS, including APPLE, PEAR, PLUM, CHERRY, QUINCE, &c. &c. Also, SEEDLINGS of EVERGREEN TREES, including Norway Spruce, Balsam Fir, Scotch Pine, Austrian Pine, Larch and Hedge Plants.

ORNAMENTAL DEPARTMENT.

The stock of Ornamental Trees and Shrubs, both Deciduous and Evergreen, will be found to embrace all that is desirable among LAWN and STREET TREES, and SHRUBS, ROSES, consisting of Hybrid Perpetual and Summer Roses; Moss, Bourbon, Noisette, Tea, Bengal or China, and Climbing or Prairie Roses.

HARDY HERBACEOUS or BORDER PLANTS, and BULBOUS FLOWER ROOTS, an extensive assortment.

All the above will be disposed of at low rates, and on advantageous terms. For further details, we refer to our full set of Catalogues, which will be mailed to applicants who enclose a one-cent stamp for each.

No. 1. Descriptive Catalogue of Fruits, &c.
" 2. do. do Ornamental Trees, Shrubs, Roses, &c.
" 3. do. do. Green-House and Bedding Plants, Dahlias, &c.
No. 4. Wholesale or Trade List for Nurserymen and Dealers.

☞ Amateurs and others interested in Horticulture are respectfully invited to visit our Show Grounds and Green-Houses at 153 South Sophia-street, a short distance from the central part of the City.

☞ All communications to be addressed to

A. FROST & Co.,
Genesee Valley Nurseries,
August, 1857. Rochester, N. Y.

Fruit and Ornamental Trees for Sale.

THE SUBSCRIBER WOULD CALL attention the coming season to his large stock of Peach and other fruit trees, embracing Apple, Pear and Cherry, both Dwarf and Standard, of extra and medium sizes. Also Apricots, Almonds, Plums, Quinces, &c., with a large stock of Evergreen and Deciduous trees, suitable for ornamenting grounds, at reasonable prices; and 50,000 two years growth Silver Maple seedlings, and other Nursery stock.

Catalogues or Trade List, with prices annexed, will be sent to all who inclose a one-cent stamp for each.

Address ISAAC PULLEN,
Aug. 1, 1857. Hightstown, Mercer Co., N. J.

FIELD AND GARDEN SEEDS.

A FULL ASSORTMENT OF THE choicest Foreign and Domestic Field and Garden Seeds, raised expressly for my trade. Especial care is taken that all seeds are fresh and genuine *to the kind*. For sale, wholesale and retail,

Chinese Sugar Cane Seed.....50 cents per pound.
Rutabaga, Russia or Swedish Turnip...50 cents do.
Large White Flat Turnip.....50 cents do.
Long White Tankard do. .....50 cents do.
Yellow Aberdeen do. .....75 cents do.
Yellow Stone do. .....75 cents do.
Red Top do. .....75 cents do.
Carrot Long Orange and White Belgian.
Beet—White Sugar, Mangold Wurtzel.
Spring and *Winter Vetches*, Broom Corn.
Grass Seeds—Timothy, Red Top, Orchard, Ray, Blue, Sweet scented Vernal, Foul Meadow, Mixed Lawn.
Clover—Red, Dutch White, Lucerne, Alsike, Crimson Sweet-scented.
Millet—Extra clean, for sowing.
Osage Orange, Yellow and Honey Locust.
Strawberry, Currant and *Raspberry* Seed.
Buckwheat of superior quality.
Bird Seed, Canary, Hemp, Rape, Maw and Rough Rice.
Grafting Wax, Whale Oil Soap, Guano and Superphosphate of Lime, in small packages of 25 cents each.
Fruit Trees and Shrubs of all kinds furnished to order.
Books.—A choice variety of Standard Works on Horticulture, Agriculture, &c. &c.
American Herd Book, Vols. 1, 2 and 3.

R. L. ALLEN,
189 Water st., New-York.

NEW WORK! NOW IN PRESS!

SORGHO AND IMPHEE,

THE CHINESE AND AFRICAN SUGAR CANES.

A COMPLETE TREATISE UPON their Origin, Varieties, Culture and Uses; their value as a Forage Crop, and directions for making Sugar, Molasses, Alcohol, Sparkling and Still Wines, Beer, Cider, Vinegar, Paper, Starch and Dye-Stuffs.

FULLY ILLUSTRATED WITH DRAWINGS OF APPROVED MACHINERY; with an Appendix by Leonard Wray of Caffraria, and a description of his patented process for crystalizing the juice of the Imphee; with the latest American experiments, including those of 1857 in the South. By

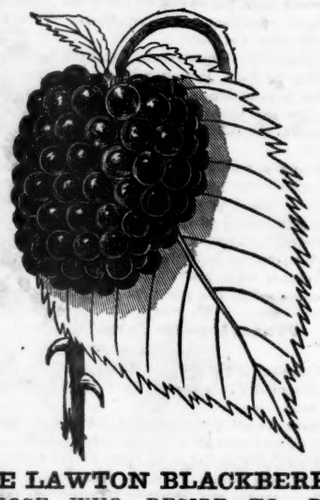
HENRY S. OLCOTT.

To which are added translations of valuable French pamphlets received from the Hon. John Y. Mason, American Minister at Paris.

PRICE ONE DOLLAR.

Sent by mail, post-paid. Orders taken immediately. Those first received will be first filled.

C. M. SAXTON & CO.,
Agricultural Book-Publishers,
140 Fulton-st., New-York.



THE LAWTON BLACKBERRY.

THOSE WHO DESIRE TO PURchase the genuine plant, are invited to visit my grounds, and partake of the fruit from the first of this month until the middle of September.

WM LAWTON,
Near to the Depot of the New-Haven Railroad, in the village of New-Rochelle, Westchester County, N. Y.

A CARD.

All Persons feeling an interest in the NEW-ROCHELLE or LAWTON BLACKBERRY are invited to visit our Grounds after about the 6th of August next, for the purpose of seeing the great bearing habit of the Plant, and also to *taste the fruit*.

GEORGE SEYMOUR & CO.,
South Norwalk, Conn.

Cherry Currants.

CHARLES J. ERHARD'S NURSERY, RAVENSWOOD.
Long Island.

THE UNDERSIGNED OFFERS HIS fine stock of Cherry Currant Bushes at
$15 per hundred for 1 year plants;
$25 do. for 2 year's plants.

CHARLES J. ERHARD.

WINTER CHERRIES FOR THE MILLION.—Enclose me $1 and a ready-directed envelope, and I will send Seed to plant ten rods square; or, for $2, will send enough Seed to plant ½ an acre. Order early.

N. N. HARTZELL.
Post-Office address, Dallas City, Hancock County, Ill.

Thorough-bred and other Stock for Sale, at Low Rates.

SHORT HORNS.—The three bulls:

Duke of Bedford: White, calved May 17, 1856. No. 1466. Price $125.

Katonah: White, calved June 8, 1855. No. 1732. Price $150.

Lamartine of Bedford: Roan, calved July 22, 1854. No. 1757. Price $200.

These bulls are recorded by the above numbers, in the third Volume of Allen's Herd Book, and do justice to their pedigree, which connects them with the most celebrated Short Horns of England and America, and among others, with the unsurpassed herd of the late Mr. Bates, of Kirkleavington.

SHETLAND PONIES, from stock selected in 1848, by Mr. Blackwood, of Edinboro', $70 to $125 each.

ENGLISH DONKEYS, Jacks and Jennies, from stock selected in England, $25 to $50 each.

IMPROVED ESSEX AND SUFFOLK PIGS, thorough-bred, from stock imported by Col. Morris.

Letters may be addressed to W. JAY, Jr., Katonah, Westchester county, N. Y., where the animals can be seen. Katonah Station (formerly Whitlockville) is on the line of the Harlem Railroad, 45 miles from New-York.

ALDERNEY COWS FOR SALE.

TWO COWS WITH CALVES—ONE Bull Calf, one Heifer do.; one Heifer, 15 months old: *one very fine Bull*; were imported some sixteen months ago, and will be sold reasonable.

Address GIDEON THOMPSON,
Bridgeport, Ct

MARKET REVIEW, WEATHER NOTES, &c.

AMERICAN AGRICULTURIST OFFICE, NEW-YORK, July 29, 1857.

Our PRODUCE MARKETS have shown more animation, since our last. The receipts of Breadstuffs have been to a fair extent, including several lots of new Wheat. The demand has been pretty brisk, chiefly for home use, though there has prevailed some inquiry from shippers, and, towards the close, from speculators. The very encouraging crop news from all parts of this country, as well as from Europe, has induced more willingness among factors to satisfy buyers. Our supplies are moderate, but the product of the unusually prolific crops will soon be generally available, and all the requirements of consumers can then be met with ease. Prices have fluctuated considerably during the past thirty-two business days, closing generally somewhat higher for desirable lots of Flour, Wheat and Corn; but decidedly lower for Rye and Oats. Among the reported sales were, June 24, 100 bushels new crop Georgia white Wheat, at $2 50; July 2, some new crop Tennessee white Wheat, at $2 25; and, July 8, new crop Tennessee red Wheat, at $2@$2 02 ℔ bushel. These were the earliest sales of new Wheat, this season. Included in the arrivals were, June 26, a sample of new crop North Carolina red Wheat, of superior quality; and, July 23, another of good new crop Maryland white Wheat. New Wheat is now coming in freely, mainly, if not exclusively, from the South, and prices are falling rapidly. What has already appeared in this market, has been of a much more than ordinary good average quality. We will soon begin to receive new Wheat from the West, when there can be no difficulty in supplying the anticipated wants of buyers....Cotton is more sought after, at decidedly better prices. The demand comes chiefly from spinners, exporters operating very reservedly. We heard of some shipments from first hands for Liverpool. Our available stock of Cotton is now about 41,000 bales, against 30,500 bales same time last year. The receipts of Cotton at all the shipping ports, to latest dates this season, have been 2,685,372 bales, against 3,453,757 bales to the corresponding period of last season. The total exports of Cotton from the United States, so far this season, have been 2,192,171 bales, against 2,886,545 bales to the same time last season. The total stock on hand and on shipboard, in all the shipping ports, at the latest dates, was 117,045 bales, against 94,133 bales at the same period last year. The stock in the interior towns, at the latest dates, was 15,605 bales, against 9,861 bales at the corresponding period a year ago....Provisions have been in lively request, and prices of the leading articles have advanced. Several sales of Mess Pork for future delivery, have been reported....Groceries have been in moderate demand—Coffee and Rice bringing rather firmer prices—and Teas realizing very full rates. Molasses was heavy and irregular. Sugars declined a shade, and closed with a downward tendency....Hay is plentier, and less inquired for, at reduced prices....Hemp, Hops and Grass Seed, rule quiet, and generally somewhat nominal in price....Tobacco has been in fair demand, at well supported rates.....Wool is a little brisker. Manufacturers are making more inquiry for suitable lots, for which they do not refuse to pay very full prices. The available supply is limited, especially of domestic, the current receipts of which are not large. There is no real speculation—several leading buyers anticipating some falling off in prices. Holders, however, are not distrustful, and they manifest no disposition to force their supplies on the market....Other commodities exhibit no important alterations.

	June 22.	July 29.
FLOUR—Com'n to Extra State	$6 00 @ 6 63	$6 15 @ 6 70
Common to Fancy Western	6 10 @ 6 50	6 15 @ 6 40
Extra Western	6 50 @10 50	6 50 @10 50
Fancy to Extra Genesee	7 15 @10 00	6 75 @ 9 75
Mixed to Extra Southern	7 00 @ 9 75	7 40 @ 9 75
RYE FLOUR—Fine and Super	4 25 @ 6 00	4 25 @ 6 00
CORN MEAL	4 00 @ 4 25	4 00 @ 4 30
WHEAT—Canada Whit	1 85 @ 1 90	1 75 @ 1 95
Western White	1 75 @ 1 95	1 70 @ 2 00
Southern White	1 75 @ 1 92½	1 72½@ 2 05
All kinds of Red	1 42½@ 1 70	1 35 @ 1 95
CORN—Mixed	86 @ 87	88 @ 90
Yellow	88 @ 90	92 @ 98
White	89 @ 95	93 @ 95
OATS—Western	63 @ 65	62 @ 64
Jersey and State	57 @ 63	57 @ 61
Southern	53 @ 57	52 @ 56
RYE	1 20 @ 1 25	1 10 @ 1 14
BARLEY	1 45 @ 1 75	Nominal
White Beans	2 25 @	2 25 @
Black eyed Peas, per 2 bush	3 50 @ 3 70	4 00 @ 4 25
COTTON—Middlings, per lb	14 @ 14¼	15 @ 15½
Fair	15 @ 15¾	15¾@ 16½
RICE, per 100 lbs	4 25 @ 5 25	4 50 @ 5 75
HOPS, per lb	8 @ 12	8 @ 12
PORK—Mess, per bbl	22 90 @23 00	21 25 @
Prime, per bbl	19 20 @19 25	19 40 @
BEEF—Country Mess	14 00 @15 00	Nominal
HOGS, Dressed, per lb	Nominal	Nominal
Lard, in bbls, per lb	14½@ 14¾	15 @ 15¾
BUTTER—Western, per lb	15 @ 20	14 @ 19
State, per lb	18 @ 25	16 @ 24
CHEESE, per lb	6 @ 10¾	5 @ 10
POTATOES—Mercers, per bbl	3 50 @ 4 00	2 00 @ 2 25
Junes, per bbl		2 00 @
Bermudas, per bbl	6 00 @ 6 50	4 00 @ 5 00
ONIONS—per bushel		1 00 @ 1 12
Bermudas, per lb	1½@ 2	1¾@ 2 00
EGGS, fresh, per dozen	17 @ 18	17½@ 19
FEATHERS, Live Geese per lb	48 @ 51	46 @ 52
SEED—Clover, per lb	Nominal	Nominal
Timothy, mowed, per bushel	Nominal	Nominal
Timothy, reaped, per bushel	Nominal	Nominal
SUGAR, Brown, per lb	9½@ 12	7¾@ 11
MOLASSES, New-Orleans, prgl	70 @ 75	70 @ —
COFFEE, Rio, per lb	9¾@ 11¾	10¾@ 12
Hyson Teas, per lb	37½@ 75	40 @ 75
Congou Teas	32 @ 50	35 @ 52½
TOBACCO—Kentucky, &c. pr lb	10 @ 22	10 @ 22
Seed Leaf per lb	11½@ 45	12 @ 50
WOOL—Domestic fleece, per lb	25 @ 55	32½@ 55
Domestic, pulled, per lb	32 @ 47	30 @ 50
HEMP—Undr'd Amer'n pr ton	170 00 @200 00	170 00 @190
Dressed American, per ton	240 00 @255 00	240 00 @255
HAY per 100 lbs	70 @ 85	60 @ 70
TALLOW, per lb	11 @ 11¾	11¾@ 11½
WHISKY, Domestic, per gal	31½@ 32	31½@
OIL CAKE, per ton	39 00 @	33 00 @42 00

The subjoined tabular statement presents summaries of the total receipts of the leading kinds of Breadstuffs, by railroad, river and coastwise, and of the total sales, here for thirty-two business days, ending to-day, as well as of the exports from the port of New-York for the same period:

	Receipts.	Sales.	Exports.
Wheat Flour, bbls	255,000	300,655	54 824
Wheat, bushels	369,000	400,850	120,364
Corn, bushels	893,000	1,249,550	35,583
Rye, bushels	12,500	31,150	
Oats, bushels	158,000		225

These summaries enable us to make the following comparison of the receipts and sales:

	Receipts.	Sales
Total 32 days this month in bushels	2,607,800	3,184,825
Total 27 days last month in bushels	1,892 800	2,791 275
Increase this month, in bushels	715,000	393,550

They also afford the following comparison of the exports, from the port of New-York, for twenty-seven business days last month, and thirty-two business days, this month:

	LAST MONTH.	THIS MONTH.
Flour, bbls	63,870	54,824
Wheat, bush	86 054	120,364
Corn, bush	66,137	35,583
Oats, bush		225

CATTLE MARKET.—The receipts of Beef Cattle for five weeks ending July 22, were 16,371, or 2,852 more than during the preceding five weeks. Receipts for the week ending June 24, 3,133; July 1, 3,451; July 8, 2,744; July 15, 4,090; July 22, 2,953. Prices varied as follows: June 24, ½c. ℔ lb lower; July 1, 1c. lower; July 8, ½c. higher; July 15, 1c, lower; July 22, ½c lower, making a total decline of 2c. for the month. Wednesday, July 22, prices ranged: Premium Cattle, none offered: First quality, 11¼@12c. Medium quality, 10½@11c. Poor quality, 9@9¼c. General selling prices, 10.@11c. Average of all sales, 10½c.

Receipts of Sheep and Lambs for the five weeks ending July 22, have been 51,836, which is a large increase over the receipts of the preceding five weeks. Sheep now bring 9@12c. ℔ lb estimated dressed weight, and Lambs 12@14c. ℔ lb. The dressed weight of Sheep is estimated at about one-half the live weight.

THE WEATHER, during a month past, has been generally warm, and even hot and sultry; so much so, that a drouth was feared. We noticed Corn in Western Illinois, curling under the scorching heat on the 7th, 8th and 9th of July, and this was the case in other places, and at a later date. Copious rains, however, fell in various parts of the country from the 15th to the 25th, and set all things right. Corn and other Summer crops have pushed forward wonderfully, and are still doing so. Our *Weather Notes*, made near this city, when condensed, read: June 24 to 27, clear and warm, 90° on 27th; 28, cloudy, warm, thunder shower at night; 29, cloudy; June 30, to July 3, wind N. E., and raining most of the time; quite cool, and snow reported in some places in Pennsylvania; July 4, cloudy A. M., clear P. M.; July 3 to 18, generally clear, and quite warm (93° in shade at 11 A. M.); ground became dry, and roads very dusty; Corn pushed ahead rapidly, and much Hay gathered in good condition; July 19 to 23, clear, warm, but showers at night of each day; 23 and 24, heavy rains, and much thunder; life destroyed, crops beat down, cellars flooded, &c.; 25 to 28, clear, warm, growing weather.

When this Number is Mailed.

The first copies of this (August) Number will be mailed to the most distant subscribers on Thursday, July 30. The balance will be mailed on Friday, July 31, and Saturday, Aug. 1, those going the greatest distance being sent off first. A few copies, particularly to new names last received, may be delayed to Monday, Aug. 3. All further delays must be charged to the U. S. Post-Office Department.

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Contents for August, 1857.